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La Oficina Española de Patentes y Marcas tiene como misión impulsar la innovación y compartir sus resultados como valores y activos de diferenciación y desarrollo tecnológico. Por ello sus dos objetivos principales son proteger la innovación tramitando distintos títulos de propiedad industrial y difundir la información técnica contenida en las patentes a través de sus servicios de Información Tecnológica, uno de ellos estos Boletines.

En esta nueva andadura del Boletín de Vigilancia Tecnológica del Sector Transformador Plástico que comenzó el primer trimestre de 2021, se ha reestructurado el contenido del Boletín, intentando reflejar la realidad en propiedad industrial de la Industria del Plástico para hacer llegar a las empresas e investigadores del sector, con periodicidad trimestral, una selección de las patentes más recientemente publicadas en el sector de transformación de los materiales plásticos. Las patentes aparecen clasificadas en los siguientes apartados: nuevos productos en los principales sectores de aplicación, invenciones que

contribuyen al desarrollo sostenible, mejoras de procesos productivos y nuevos materiales plásticos con propiedades avanzadas. No se ha incluido en este Boletín información sobre la tecnología de impresión 3D, ya que ésta aparece recogida en el boletín de Vigilancia Tecnológica Impresión 3D que la OEPM comenzó a publicar en el 2020

A través de las imágenes que representan cada sección y que aparecen en la portada del Boletín, se accede de forma directa a los contenidos de las mismas, donde encontraremos el número de publicación de cada patente, quien la solicita, una pequeña descripción de la invención y el enlace de acceso al texto completo del documento. De forma complementaria, se incluye una selección de noticias sobre propiedad industrial y actividades relevantes de la OEPM.

Si se desea recibir este Boletín periódicamente basta con cumplimentar el correspondiente formulario de suscripción

## Contenido

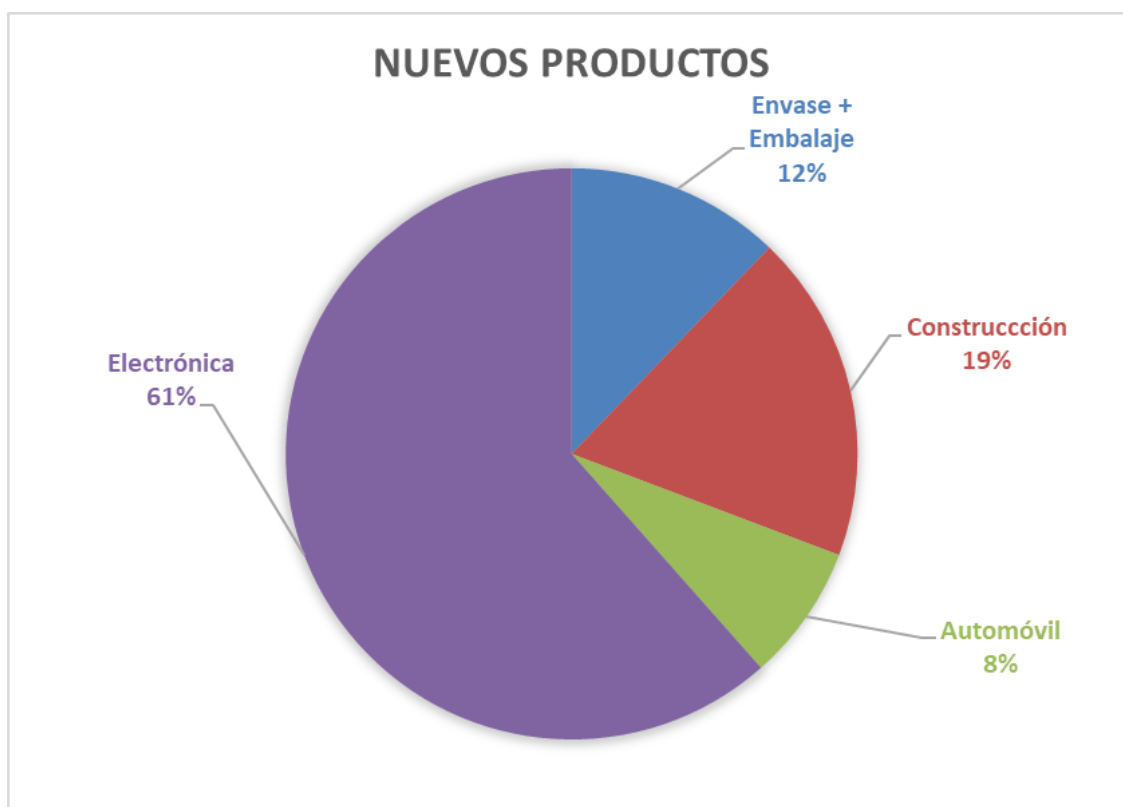


NUEVOS PRODUCTOS

SOSTENIBILIDAD Y  
ECONOMÍA CIRCULARNUEVOS PROCESOS  
INDUSTRIALESMATERIALES CON  
PROPIEDADES AVANZADAS  
O MEJORADAS

# NUEVOS PRODUCTOS

En el siguiente gráfico se muestra la distribución de las 11.461 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos Productos. Tal y como viene ocurriendo, el sector dedicado a la electrónica sigue siendo el que más documentos de patente aporta.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

## Envase y Embalaje

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
<a href="#">WO2025003338</a>	(INVO) INVOX BELGIUM NV [BE]	Cartridge for inhalation device for generation and administration of medically active liquid in aerosolized form, has deformation element for contacting welded seam such that welded seam is deformed to deviate from traversal line to main axis of inner tube
<a href="#">WO2025016943</a>	(EVIO) EVIOSYS PACKAGING SWITZERLAND GMBH [CH]	Closure for closing metal containers containing foodstuffs, comprises generally planar centre panel, and downwardly extending sidewall depends on peripheral region of centre panel and terminating with inwardly directed curl
<a href="#">US2025051081</a>	(BERR) BERRY GLOBAL INC [US]	Insulative container has container body includes an insulative cellular non-aromatic material having a polypropylene base resin and the container sleeve includes a heat-shrinkable polymeric material where heat-shrinkable polymeric material includes polyethylene terephthalate or polypropylene
<a href="#">US2025051068</a>	(HUBE) HUBER CHARLES F [US]; HUBER JAMES C [US]	Cup lid ice container apparatus for being placed on beverage container to enable user to insert and/or release E.G. frozen or semi-frozen liquid into beverage, has seal sealing first material in compartment, and configured to be removed or broken to remove first material from compartment
<a href="#">EP4512733</a>	(BINT) BRAUN MELSUNGEN AG [DE]	Container I.E. medical container for recycling plastic bottles, has label comprising ink area and no-ink area attached to surface via attachment area, where material of container has lower density than material of label
<a href="#">US2025066092</a>	(DAYD) GENOVESE DANIEL [US]; (GENO) GENOVESE DAVID [US]; DAY DREAMERS CONFECTIONS [US]	Direct-mold blister packaging system used for chocolate or gummy products, comprises custom-designed plastic mold for shaping and containing confectionery products, individual compartments within mold designed, confection pieces formed within mold, and metallic film overlaid onto mold
<a href="#">WO2025049468</a>	(EAMM) EAM MOSCA CORP [US]	Plastic strap for bundling of discrete articles into bundles, has major faces including multiple voids extending into thickness from major face, where each of voids include straight boundary lines at periphery

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025074686	(ELIT) ELITE EATS GROUP LLC [US]	Multifunctional packaging container for storage and delivery of E.G. food items, during home delivery services, has flat-box design configurable from flat state to assembled state, and two compartments accommodating temperature-regulating elements
US2025083869	(GENM) GEN MILLS INC [US]	Packaged food product, particularly packaged dough product, E.G. cookies, bread, breadsticks, biscuits, rolls and croissants, has separator interposed between cup and dough product, where separator includes hollow column support extending from main body portion and abutting bottom of cup

## Construcción

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025003742	(UYTR) UNIV DE TRAS OS MONTES E ALTO DOURO [PT]	Building element for building or section of building, has support layer, and insulating layer comprising silk cocoons and arranged on support layer, where insulating layers are arranged in zone
WO2025008697	(EVAL) EVALMECH S R L [IT]	Pipe cleaning milling machine for cleaning sediment present inside hydraulic pipe, has cable winding drum with grooves accommodating and maintaining cables included in machine, and spindle transmitting rotary motion to selected cable
EP4491825	(GELA) GELA PLAST AB [SE]	Support for supporting reinforcement grid used in concrete slab, has central hub arranged around central axis extending in axial direction, and outer wall sections that extends in axial direction and connects lower support surfaces with upper support surfaces
AT527290	(GETZ) GETZNER WERKSTOFFE HOLDING GMBH [AT]	Bearing for arrangement between two load-bearing components of building, comprises polyurethane layer and fiber-reinforced reinforcement layer that are glued together, where reinforcement layer is arranged between two polyurethane layers
EP4506532	(ENER) ENEREST OUE [EE]	Door threshold for use in openings of E.G. home or industrial garage doors, has cast floor plates provided on opposite sides of threshold and reinforcements bars connecting floor plates, and vertical thermal insulation plate provided with edge running in direction of threshold between floor plates

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025015121	(OWEN) OWENS CORNING INTELLECTUAL CAPITAL LLC [US]	Bonded non-woven fibrous mat useful as fluid filter in air filtration I.E. dry air, humid air and compressed air, comprises E.G. precursor mat i.e. non-woven web of fibers i.e. blend of glass fibers and polyester fibers and first binder
WO2025018921	(INFR) INFRASTRUCTURE REINFORCEMENT IND COMPANY IRIC [SA]	Non-woven geotextile product I.E. three-dimensional geotextile product, for landfill cover systems in civil engineering applications, has original product welded or not with geogrid materials, and geogrid welded with reinforcing elements
WO2025019662	(JELD) JELD WEN INC [US]	Thermal edge spacer for glazing unit, has first and second spacer leg configured to support first pane and second pane, and thermal insert element that is received in channel, that extends longitudinally along longitudinal axis, and that spans across channel between first and second spacer leg
CN119373366	(STVS) STV SERRATURE S R L [IT]	Striker I.E. magnetic type striker, for locks intended for closing fixtures, E.G. doors and windows made of materials, E.G., aluminium, aluminium-wood, wood and polyvinyl chloride installed in buildings E.G. offices, hotels, commercial shops, houses and flats, has retaining element comprising slider
WO2025030031	(APPL) APPLGATE GREENFIBER ACQUISITION LLC [US]	Composition used for producing fire-retardant insulation material, comprises borate compound, urea, and surfactant
WO2025045996	(ABLY) ZIPPLIFY AB [SE]	Latch assembly for keeping different types of doors locked used in latch slider of access member system, has base bolt passing through base hole in base and threadingly engaging nut for securing primary section to base, where base is positioned between primary section and latch slider
EP4517021	(MCGU) MCGUIRE LUC [CA]; (NINE) 9485 7489 QUEBEC INC [CA]	Composite panel for use as roofing insulation and support waterproofing panel for roof, has polymer membrane including flap extending from membrane edge to junction between flap and remainder of polymer membrane
WO2025046566	(CRIA) CRIATERRA INNOVATIONS LTD [IL]	Article of manufacture used in building material industry product, comprises compressed mixture of particulates comprising blend of clay material comprising at least one clay mineral having preset plasticity index and water insoluble inorganic material and fibrous material
WO2025052205	(FORE) FOREL S P A UNIPERSONALE [IT]	Calibration apparatus for thermoplastic spacer for insulating glass, comprises calibration device including frustoconical calibration element movable along vertical direction between rest position and operating position

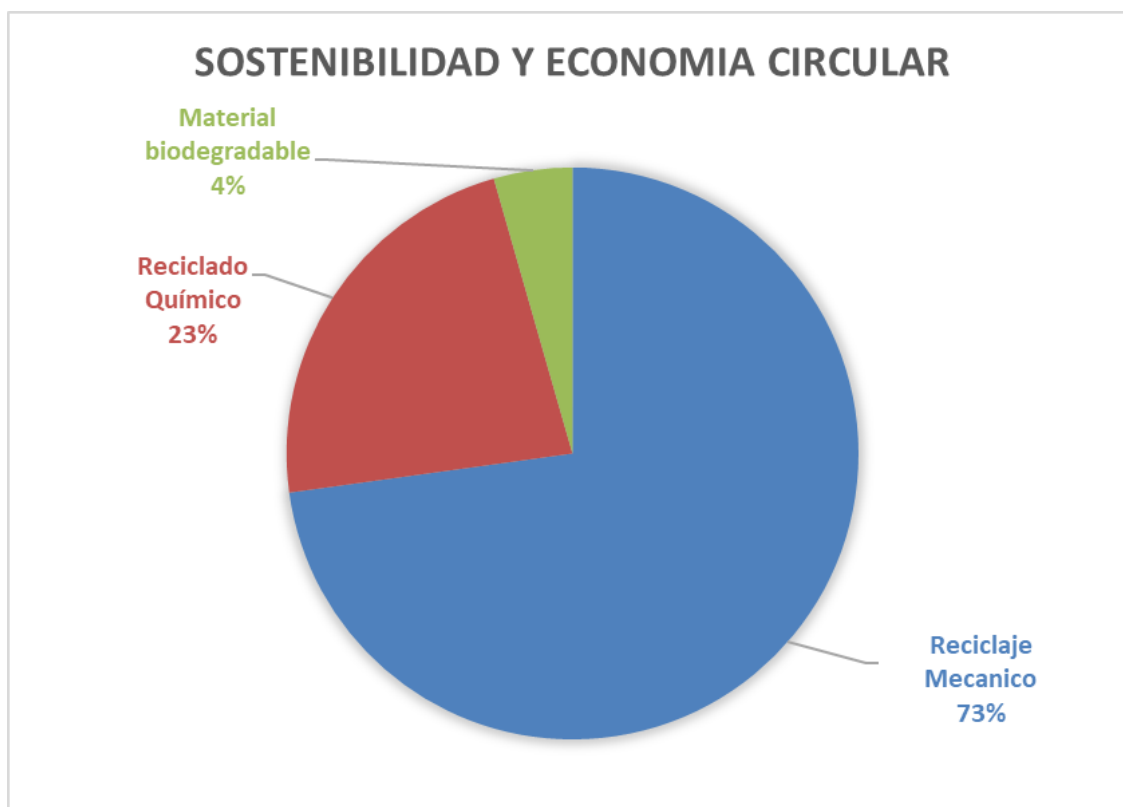
# Automoción

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN119329402	(FAUR) FAURECIA INNENRAUM SYSTEME GMBH [DE]; (WESF) HELLA GMBH & CO KGAA [DE]	Lighting function featured vehicle trim part E.G. vehicle interior trim part, for E.G. passenger car, has light emitting system for partially emitting light towards cover layer, and carrier arranged between light emitting system and cover layer
US2025026272	(ADFL) ADVANCED FLOW ENG INC [US]	Rock step assembly for off-road vehicles, has upper mounting element fixed along length of upper portion of platform, lower mounting element fixed along length of lower portion of platform, and pinch seam protection element to cover pinch seam of vehicle by being deformed to surround pinch seam
GB2632118	(UPCY) UPCYCLE HOLDINGS LTD [IE]	Method for forming panel such as structural panels, involves forming hollow casing with fill opening, filling hollow casing with core material through fill opening, and heating panel in mould defining enclosed mould chamber to activate and expand foamable material to fill casing
DE102023121548	(PORS) PORSCHE AG [DE]	Arrangement of underrun protection on traction battery structure of motor vehicle comprises plate-shaped support element designed to support high-voltage battery modules of traction battery of traction battery structure, where underrun protection has upper plate
CN119590186	(NGOM) NISHIKAWA RUBBER CO LTD [JP]	Glass run for arranging in window frame of automotive door, has trim strip that is assembled to side of glass run body, and extends in vehicle front-rear direction, where trim strip body made of resin is formed through extrusion molding

VOLVER A  
CONTENIDO

# SOSTENIBILIDAD Y ECONOMÍA CIRCULAR

En el siguiente gráfico se muestra la distribución de las 1.508 familias de documentos de patente recuperadas en este trimestre en el apartado de Sostenibilidad y Economía Circular. El reciclado mecánico sigue siendo el sector que mayor actividad innovadora presenta.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

## Materiales Biodegradables

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
<a href="#">TW202502895</a>	FUJIFILM CORP [JP]	Composition, film, optical filter, solid-state imaging element, image display device, and compound
<a href="#">PL445627</a>	SIEC BADAWCZA LUKASIEWICZ INST CHEMII PRZEMYSLOWEJ IMIENIA PROFESORA IGNACEGO MOSCICKIEGO [PL]	Chitosan composition and method of obtaining chitosan-based films with added fruit peel extract and deep eutectic mixtures
<a href="#">KR20250009821</a>	FOUNDATION SOONGSIL UNIV INDUSTRY COOPERATION [KR]	Manufacturing method of high purity biopolymer grafted hyper branched nanocellulose
<a href="#">WO2025018363</a>	(MITU) MITSUBISHI CHEM CORP [JP]	Laminate used for E.G. disposable plastic shopping bag, comprises base layer and seal layer comprising resin composition containing aliphatic polyester-based resin containing repeating structural unit derived from aliphatic diol
<a href="#">KR20250012417</a>	(UYCN) INDUSTRIAL COOPERATION FOUNDATION JEONBUK NATIONAL UNIV [KR]	Biodegradable plastic composite material comprises natural polymer compound having isocyanate compound, and biodegradable polymer compound
<a href="#">WO2025023164</a>	(KURS) KURARAY CO [JP]	Resin composition used for forming molded article, comprises beta-methyl-delta-valerolactone copolymer, and polylactic acid polymer
<a href="#">KR20250017933</a>	(GLDS) LG CHEMICAL LTD [KR]	Predicting processability of plastic resin composition for agricultural mulching film, involves calculating elastic recovery rate measured from difference between storage elastic modulus at preset strain rate
<a href="#">PL445762</a>	POLITECHNIKA LODZKA [PL]	Polymer composition intended for products with increased resistance to oxidation and susceptible to composting
<a href="#">KR20250020807</a>	(KIMT) KIM DO AH [KR]	Biodegradable cushion case, comprises lid made of biodegradable material and storage container material made of biodegradable material, connecting portion made by joining components, and closing portion made by attaching button portion
<a href="#">WO2025033388</a>	(MITU) MITSUBISHI CHEM CORP [JP]	Masterbatch used as biodegradation retarder, comprises polyphenol compound in which phenolic hydroxyl groups are bonded to benzene ring, and thermoplastic resin



Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025032565	(DEHG, FOJL, KHAZ, MOHA) MOHAMMADI BEHZAD [IR]; FOJLALEY MEHRDAD [IR]; DEGHANI MORTEZA [IR]; KHAZAE ZAHRA [IR]	Plant based biodegradable polymer, comprises starch or sugar beet molasses, molasses, water, plasticizer, hydrochloric acid, sodium hydroxide, reinforce agent comprising titanium dioxide, talc or lignin, and thickening agent
JP2025027239	(SHIE)	Cosmetic E.G. skin care cosmetic, comprises spherical elastomer particles which are crosslinked particles of copolymer containing polyester structure and polyether structure, and elastomer composite particles comprising polyorganosilsesquioxane or silica on surface of spherical elastomer particles
JP2025027238	(NISV) SHINETSU CHEMICAL CO [JP]; (SHIE) NISSIN CHEMICAL IND CO LTD [JP]	Elastomer composite particles for E.G. makeup cosmetic, comprise polyorganosilsesquioxane or silica on surface of elastomer spherical particles that are crosslinked particles of copolymer having polyester structure and polyether structure
KR20250026685	MUN HYEONG UK [KR]	Eco-pearl
WO2025053227	(NIDE) NEC CORP [JP]	Polysaccharide-based biomass plastic for molding resin composition, comprises cellulose derivative in which hydrogen atoms in hydroxyl group in cellulose are substituted by chain component, and biodegradable resin containing polybutylene succinate, polybutylene succinate adipate and polycaprolactone

## Reciclado Mecánico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4484107	(CONT) CONTINUUS MAT INTELLECTUAL PROPERTY LLC [US]	Manufacturing product I.E. drywall, wallboard, construction sheeting, involves forming first mixture of PVC fragments, cellulosic fragments, and at least one alkaline sequestering agent, heating first mixture at temperature and duration sufficient to melt at least portion of PVC fragments
WO2025003515	(ENFI) ENFINITY IBERIA S L U [ES]	Method for obtaining secondary raw materials from composite materials structures waste derived from wind blades, involves providing ripping of composite material structures waste, where waste is separated into composite material with resin
US2025010535	(FMCC) FMC TECH INC [US]	Method for producing pressure containing pipe for containing E.G. pressurized hydrogen fluid, involves forming fragments into pressure containing structure by forming process for producing pressure containing structure

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025010338	(SUTT) SUTTON PHILIP [GB]	Marking product used for subsequent tracking of product throughout its lifecycle, involves printing product or packaging or label which is subsequently affixed to product with machine-readable code that uniquely identifies product, where 2D data matrix is readable at point in lifecycle of product
DE102023117491	(KLAU) K&L AUTOMATION SYSTEMS GMBH [DE]	Method for recycling plastic products, E.G. plastic chairs by shredding plastic products into plastic flakes, involves crushing plastic products into plastic flakes, and cleaning flakes by supplying liquid and drying wet flakes
WO2025014888	(SOLA) SOLARCYCLE INC [US]	Solar module recycling involves mechanically processing used solar module to create feedstock comprising polymer and metal, and sieving feedstock to obtain first fraction comprising polymer, and second fraction comprising metal, where first fraction, second fraction comprise silver
WO2025012020	(BLEN) BLEND ENERGY LTD [CY]	Material processing system used in apparatus, comprises pre-treatment vessel arranged to melt and/or fluidize material, reactor arranged to receive material from vessel and to heat material to produce vapor and column for receiving vapor from reactor and separating vapor into component products
WO2025012076	(LABO) OWENS CORNING INTELLECTUAL CAPITAL LLC [US]; (OWEN) DALLIES LABOURDETTE ERIC [FR]	Recycled material pellet for E.G. automotive parts, has compacted shredded glass fiber waste material comprising glass fibers and thermoplastic binder, where glass fibers have specific aspect ratio
WO2025011717	(LEIC) LEICON APS [DK]	Method for manufacturing planar plate-shaped molded structure, involves cutting composite structures into smaller pieces comprising glass fiber-reinforced composite material, and filling smaller pieces and binder material into mold
EP4494833	(SPIN) SPIN PET S R L [IT]	Producing plastic granules from recycling of waste fabrics and/or yarns, preferably for use in manufacturing processes of plastics processing, by compacting selected material, grinding slab of plastic material, and extruding flakes
CH720952	(ALPL) ALPLA WERKE ALWIN LEHNER GMBH & CO KG [AT]	Recycling plastic packaging using silo, comprises E.G. delivering packaging, preferably in bale form, packaging sorting, crushing into flakes, washing, drying flakes with dry hot fluid, sorting and granulating flakes in extruder
WO2025017254	(SFRA) SAFRAN [FR]	Method for recycling end-of-life or damaged part of commercial aircraft seat structure in aeronautical field, involves cooling organic matrix composite part in shaping tool, and removing recycled part from shaping tool

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025026046	(CERT) CERTAINTED LLC [US]	Batch of recycled asphalt shingle pellets with reduced airborne fiberglass, comprises core includes recycled asphalt shingle waste and softening agent, and shell comprises no greater than recycled asphalt shingle waste, where batch comprises large fiberglass sieve factor
WO2025017257	(PELL) PELLENC SELECTIVE TECH [FR]	Method for sorting objects E.G. non-food product packaging objects based on presence of carbon of biological origin and recycled material, involves acquiring stream of images of objects present on zone of belt extending over width
CN119371138	(UHKS) UNIV HONG KONG SCIENCE & TECH [CN]	Preparing composite construction material useful in E.G., road pavements, involves combining plastic waste and construction waste to form waste mixture, and curing waste mixture under oxygen-free conditions to melt or soften portion of plastic waste and forming composite construction material
EP4497561	(RETY) RETYRE TECH LTD [GB]	Apparatus for removing rubber from car tires, has nozzle assembly including nozzle to direct high-pressure water onto flattened tire part to remove rubber, where rubber is captured and delivered into collection chamber
DE102023207194	(LPKF) LPKF WELDINGQUIPMENT GMBH [DE]	Separating two plastic component parts E.G. as battery cell connected in material-locking manner along interface comprises E.G. irradiating laser radiation to soften material over interface and applying separating force to separate material
WO2025027092	(COMP) SAINT GOBAIN [FR]	Fragmentation device for fragmenting glass of laminated glazing unit placed manually by robot-type device, has flattening station arranged before weakening station, where weakening station comprises parallel rollers arranged one above other
WO2025024879	(NEXT) NEXT GENERATION RECYCLINGMASCHINEN GMBH [AT]	Processing plant for plastic material E.G. plastic waste, has first processing unit that is in flow connection with plasticizing device and second processing unit that is also in flow connection with plasticizing device
WO2025031717	(MICL) MICHELIN & CIE [FR]	Method of machining pneumatic tire, involves using positioning systems to move cutting tools and defining cutting trajectories to remove material, in zones of external layer up to depth which is located between bottom of grooves and reinforcement ply
WO2025031715	(MICL) MICHELIN & CIE [FR]	Method for machining E.G. toroidal bandage to equip vehicle wheels by using measurement of deformation of bandage to detect arrival of cutting tool, involves incompletely accompanying progression of cutting tool in direction of penetration

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4506497	(DERD) DERDZIUK ZBIGNIEW [PL]	Insulation material used for insulating and soundproofing building partitions., comprises first fraction and second fraction, where first fraction consists of textile materials and second fraction consists of plastics selected from polyolefin group
WO2025032303	(JOHO) JOHNSON MATTHEY PLC [GB]	Method of recycling solid ionomer material contaminated with seal material used for mounting solid ionomer material E.G. ionomer membrane, involves heating solid ionomer material in solvent, adding acid to reduce pH and precipitate breakdown products, and separating precipitated breakdown products
WO2025032621	(ONEZ) 100% TURFRECYCLERS SRL [IT]	Method for separating infill for artificial grass surfaces for E.G. football fields, involves investing capture elements with flow of infill to artificial grass filaments to adhere partially to capture elements
WO2025036874	(HEAL) HEALIX GROUP B V [NL]	Method for separating organic fibers E.G. plant-based fibers such as hay, for recycling plastics material fibers and tapes used in agricultural industry, involves discharging plastics material fiber fraction and reduced organic fraction from dry cleaner in separate streams
EP4512599	(PALT) PALTECH [IE]	Method for producing article of thermoplastic polymer used in road barriers, urban furniture and containers, involves feeding solid particles of thermoplastic polymer into extruding apparatus, filling mold cavity with thermoplastic melt fed out of extruding outlet, and extracting article from mold
EP4512596	(RITT) RITTER GMBH [DE]	Plastic product I.E. cartridge for holding filling material, has product main body containing post-consumer recycled material, where post-consumer recycled material contains foreign matter content
WO2025046582	(DOLA) DOLAV PLASTIC PRODUCTS COOPERATIVE SOC LTD [IL]	Thermoplastic compound used for producing article E.G. water pipes, comprises recycled or post-production cross-linked polyethylene, and polymeric binder, and has specific melt flow index
CN119610463	(HOND) HONDA MOTOR CO LTD [JP]	Method for recovering E.G. olefin resin from salvage vehicle, involves shredding interior components to obtain second shredder dust, and performing air sorting process to second shredder dust to obtain second low-specific-gravity dust and second high-specific-gravity dust
WO2025058622	EQUISTAR CHEM LP [US]	Selectively-reduced gels and stress points of microfine pcr/pir resin
US2025091256	HONEYWELL FEDERAL MFG & TECH LLC [US]	Recycling of fiber-reinforced composite material using electromagnetic radiation
US2025101687	POLYTAN GMBH [DE]	Method for manufacturing an elastic layer on site

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025061504	(POLY) POLYTAN GMBH [DE]	Method for manufacturing elastic layer on site for E.G. sports, involves mixing pressed filtered artificial turf infill, binding agent and fragments of aged elastic layer for forming fluid elastic composite

## Reciclado Químico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102023117182	(HENS) HENSEL RECYCLING GMBH [DE]	Method for recycling membrane electrode assembly involves contacting membrane electrode assembly with fluid containing alkanol to obtain slurry, heating, receiving mixture of solid phase and liquid phase, and separating solid phase and liquid phase
WO2025003149	(MICL) MICHELIN & CIE [FR]	Producing hydrocarbon resins from charge of styrenic compounds and charge comprising rubber chips used in vehicle tire comprises separating pyrolysis oil into raffinate, intermediate fraction and extract and carrying out resin synthesis
WO2025003817	(LPPL) USE WASTE PROSTA SPOLKA AKCYJNA [PL]; (USEW) LPP SPOLKA AKCYJNA [PL]	Recycle of products of polyethylene terephthalate in recovery of E.G. high-purity terephthalic acid, involves comminuted products, adding esters of dicarboxylic acids, decolorizing, glycolyzing polyethylene terephthalate using ethylene glycol and catalyst, and precipitating terephthalic acid
WO2025008333	(TYRE) TYRE RECYCLING SOLUTIONS S A [CH]	Method for reducing content of polycyclic aromatic hydrocarbons in rubber powder used in consumer good article such as tire, hose, shoe sole, gasket, involves providing rubber powder, subjecting rubber powder to heat treatment at reduced pressure
EP4495173	FLOORING TECHNOLOGIES LTD [MT]	Process for recycling melamine-formaldehyde resin from waste resulting from the production and processing of wooden boards
WO2025017473	(REPE) REPET S R L [IT]	Depolymerization process of polymer used for food industry, involves using ionic liquid comprising choline, polymer belonging to family of polyamide or polycarbonate or polyurethane or polyester, ionic liquid of (2-hydroxyethyl) trimethylammonium arginate and methanol are mixed

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025024154	(DOWC) DOW GLOBAL TECHNOLOGIES LLC [US]	Purification of reclaimed polymer involves transferring reclaimed polymer to polymer dissolution vessel, dissolving with solvent, transferring to solid/liquid separation vessel to remove first insoluble contaminant and make solid/liquid separation vessel composition
WO2025024153	(DOWC) DOW GLOBAL TECHNOLOGIES LLC [US]	Purification of reclaimed polymer involves transferring reclaimed polymer containing solid to polymer dissolution vessel, dissolving solid reclaimed polymer in polymer dissolution vessel having preset temperature and pressure with solvent and transferring to solid/liquid separation vessel
WO2025026755	(STRY) TRINSEO EUROPE GMBH [CH]	Recycling polycarbonates from waste feedstocks and repairing polycarbonate, involves contacting waste feedstock housed in perforated container and polycarbonate solvents that are configured to dissolve waste polycarbonates in waste feedstock to form recovery solution
WO2025026752	(STRY) TRINSEO EUROPE GMBH [CH]	Modification of polycarbonates with siloxanes for polymerizable composition, involves contacting reactive polycarbonates having free hydroxyl and/or carboxyl groups with reactive siloxane compounds terminated by acetoxymethoxy, ethoxy, halide or hydrogen atoms in solvent system
WO2025032036	(EEDE) EEDEN GMBH [DE]	Processing of textile fibres, involves treating textile fibres with methanol-containing solvent at predetermined temperature and pressure, no active addition of catalyst takes place
WO2025030930	(BADI) BASF SE [DE]; BASF CHINA CO LTD [CN]	Recycling polymer waste comprises E.G. mixing polymer waste and dispersion medium to form mixture, shearing the mixture to form dispersion of droplets of the polymer waste in liquid phase and cooling the dispersion
WO2025036850	(CNRS, EXPL, UTOS) EXPLEO FRANCE [FR]; CENTRE NAT RECH SCIENT [FR]; UNIV TOULOUSE 3 PAUL SABATIER [FR]	Composition used for disassembly of structure, comprises organic carbonates chosen from dialkyl carbonates and alkylene carbonates, aqueous solution of hydrogen peroxide, organic acids chosen from monocarboxylic acids and polycarboxylic acids, and gelling agents
WO2025037345	INDIAN INST TECH MADRAS [IN]	Method for producing polystyrene microparticles or microfibers from waste polystyrene using spinning disk equipment

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025038042	(UYCH) CHIANG MAI UNIV [TH]	Manufacture of metal-organic framework porous material of aluminum and terephthalic acid used for storing, separating and absorbing gas E.G. hydrogen, involves dissolving terephthalic acid in basic solution, adding aluminum substrate, reacting, separating precipitate, and drying by baking
WO2025040965	(ONGC) MANGALORE REFINERY & PETROCHEMICALS LTD [IN]	Depolymerization of polyethylene terephthalate used in packaging product, involves mixing polyethylene terephthalate flakes, solvent and co-solvent, heating to obtain crude bis(2-hydroxyethyl) terephthalate monomers and oligomers, separating solvent mixture, adding fluid medium and isolating
WO2025043185	RIKARBON INC [US]	Method of post-consumer pet polyester depolymerization and repolymerization
WO2025042841	(NUTE) NUTECH VENTURES [US]	Method for recycling multi-component material E.G. textile, involves immersing multi-component material containing polymer and dye in solvent, dissolving polymer and dye in solvent to form solution, precipitating polymer and separating polymer from solution comprising dye
WO2025051519	(SABI) SABIC GLOBAL TECHNOLOGIES BV [NL]	Producing petrochemical feedstock by mechanically processing hydrocarbon feed of mixed waste plastic, decontaminate treating oligomeric product stream and combining decontaminated oligomeric product stream with hydrocarbon stream
EP4524190	(BASE) BASSELL POLYOLEFINE GMBH [DE]	Recycled polymer composition useful to produce blow molded article E.G. jerry cans, comprises mixture of recycled polymer E.G. recycled polyethylene or recycled low density polyethylene, and reactive additive such as chain extenders such as acid anhydrides, or peroxides E.G. didodecanoyl peroxide
WO2025058925	EXXONMOBIL TECHNOLOGY & ENGINEERING COMPANY [US]	Zeolitic materials in polyolefin decomposition via pyrolysis
WO2025061946	SABIC GLOBAL TECHNOLOGIES BV [NL]	Blends of repeatedly recyclable-polymer mimics of linear low-density polyethylene(lldpe) polymers
WO2025061951	SABIC GLOBAL TECHNOLOGIES BV [NL]	Repeatedly recyclable-polyolefin copolymer mimics (rr-pcm)
WO2025061948	SABIC GLOBAL TECHNOLOGIES BV [NL]	Blends of repeatedly recyclable-polymer mimics (rr-pms) of polypropylene polymers
WO2025061945	SABIC GLOBAL TECHNOLOGIES BV [NL]	Blends of repeatedly recyclable-elastomer copolymer mimics (rr-ecpms) of polyolefin elastomer copolymer blends

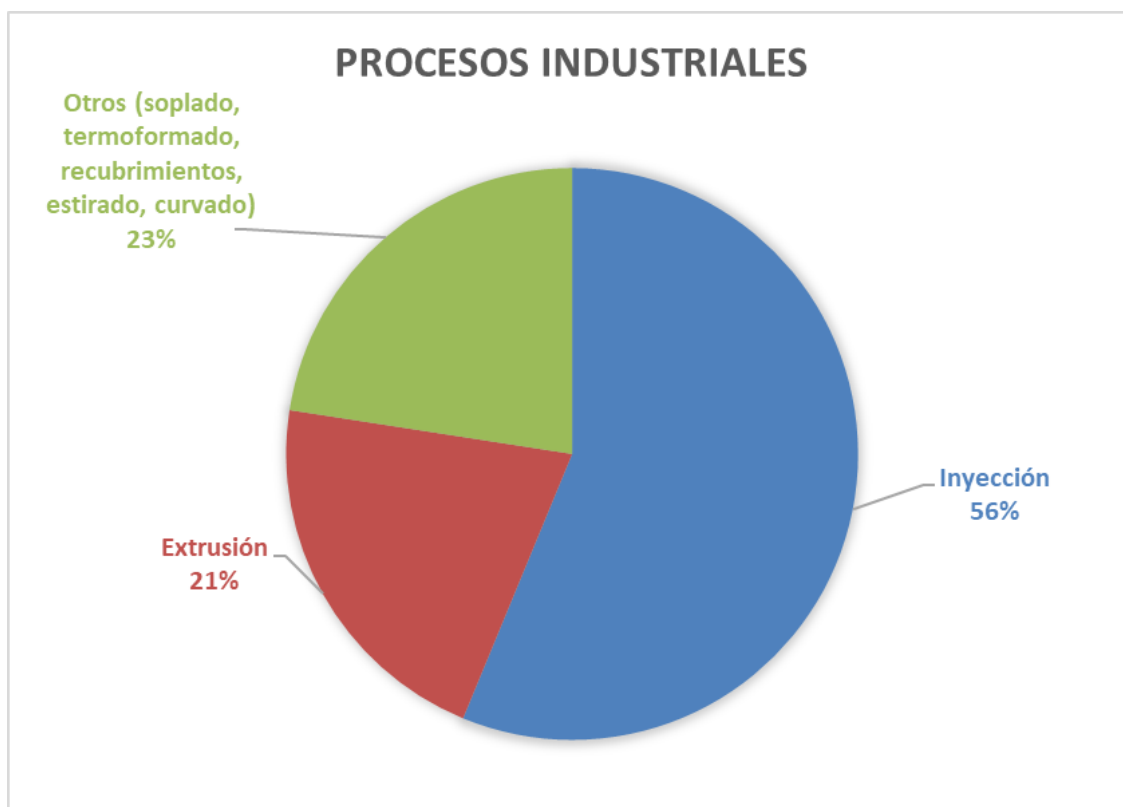
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
<a href="#">WO2025061947</a>	SABIC GLOBAL TECHNOLOGIES BV [NL]	Blends of repeatedly recyclable-polymer mimics of low-density polyethylene (ldpe) polymers
<a href="#">WO2025061955</a>	SABIC GLOBAL TECHNOLOGIES BV [NL]	Blends of repeatedly recyclable-plastomer copolymer mimics (rr-pcpms) of polyolefin plastomer copolymers
<a href="#">WO2025062468</a>	RE SPORT S R L [IT]	Method for producing textile fibers

VOLVER A  
CONTENIDO



# NUEVOS PROCESOS INDUSTRIALES

En el siguiente gráfico se muestra la distribución de las 8.143 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos procesos industriales. Los procesos que mayor actividad innovadora reflejan son el de inyección y extrusión.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

## Inyección

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
<a href="#">US2025050562</a>	(GAVC) GAVCO PLASTICS INC [US]	Injection molding tool for creating first portion with aperture and second portion without aperture, has insert installed on mold portion, where insert comprises protrusion that creates gap relative to sidewall of another mold portion when portions closed to form tool
<a href="#">US2025073972</a>	(HYMO) HYUNDAI MOBIS CO LTD [KR]	Injection assembly for injecting and applying injection material into and on set of coating portions, used in vehicle, has cover part covering upper surface of controller, where set of injection holes is formed in cover part to correspond respectively to positions of heating elements in controller
<a href="#">US2025033262</a>	(SOFI) SOFIA RICHARD [US]	Molding system for reprocessing polymeric material E.G. mineral, during molding process, has barrel having input and output, and screw arranged in barrel, and hopper used for supplying polymer material coupled to input, where output is configured to be coupled to mold
<a href="#">CN119458742</a>	(KING) KING STEEL MACHINERY CO LTD [TW]	Injection molding method for forming article E.G. portion of footwear, such as outsole with different physical or functional properties, involves forming first component from first mixture, where second mixture is injected into mold cavity through second feeding port
<a href="#">CN119526722</a>	(SHIH) SEIKO EPSON CORP [JP]	Cell device, has housing included with accommodation space and door connected to space, and movable device that is arranged in space, and operation section arranged in space and is to operate movable device, and light blocking section for overlapping with operation section
<a href="#">CN119634733</a>	(SHIH) SEIKO EPSON CORP [JP]	Injection molding system for realizing injection molding of molded articles using metallic powders, has control device that causes cleaning device to blow out air when fixed molding die and movable molding die are attached to fixed section and movable molding die is located at die closed position

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025091271	(KSMK) KOSMEK LTD [JP]	Magnetic clamping apparatus for holding mold on attraction face using magnetism, and for use in injection molding apparatus, has magnets arranged at holding element, and proximity sensor for detecting proximity of object to be clamped to attraction face
CN119502823	(NIHG) YAMAHA FINE TECH CO LTD [JP]	Decorative element I.E. design element, for use as interior element of automobile, comprises board comprising cut-out pattern portion, first surface, and second surface, where resin film arranged on first surface of board, that include resin layer arranged on second surface of board
CN119279348	(ILLT) ILLINOIS TOOL WORKS [US]	Seat assembly for use in office furniture for residential, commercial, entertainment, transportation, or office applications for industrial machinery, has carrier molded to fabric component, where carrier includes curved parting line that circumscribes perimeter of carrier
US2025001660	(TAKA) TOKAI KOGYO CO LTD [JP]; (TOAI) TAKARAKASEI KOGYO CO LTD [JP]	Long molded article I.E. pillar garnish for use in vehicle, has joint portion configured to be joined to end covering portion provided in wall portion at end of main body portion, and wall portion forms head portion and body portion on back surface side of head portion
EP4520503	(ROHR) ROHR INC [US]	Method for forming thermoplastic composite component of aircraft, involves applying thermoplastic overmold onto thermoplastic continuous-fiber body along perimeter edge using injection molding assembly
CN119427778	(HYMR) HYUNDAI MOTOR CO LTD [KR]; (KIAK) KIA CORP [KR]	Manufacturing interior component for vehicle using natural material, involves forming translucent portion that processes symbol portion on front surface of natural material and protrudes in shape of symbol portion, and attaching light source unit to injection molded product and illuminating
CN119427657	(HOND) HONDA MOTOR CO LTD [JP]	Injection molding device for injection-molding molded article in tubular shape with constant inner diameter, has slider that causes first core or second core to move in sliding manner and be inserted into and pulled out of cavity
WO2025019741	(ORTH) ORTHOMOD LLC [US]	Surgical implant such as osteoactive surgical implant has outer portion which is made of polymer, and internal strut that is coupled to outer portion and has smaller diameter than outer portion, where ceramic granules are deposited at surface of internal strut

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025058506	(HANG, HYMR, KIAK) HYUNDAI MOTOR CO LTD [KR]; KIA CORP [KR]; HANGUK MOLD CO LTD [KR]	Injection molding apparatus used to manufacture liner for hydrogen tank, has second mold that is configured to be moved toward and away from first mold, where second mold is being configured to define cavity for forming molded body with first mold
CN119427667	(HOND) HONDA MOTOR CO LTD [JP]	Injection mold for molding cylindrical unit with reduced weld marks, has ring-shaped gate through which molten resin is poured into cavity, and step arranged between first ring and second ring and establishing communication between rings
WO2025061730	(SPIA) SIPA PROGETTAZIONE AUTOMAZ [IT]	Apparatus for producing plastic blood collection tubes, has channel for communicating with gap adapted to be connected to blowing unit adapted to blow air in gap to aid removal of each blood collection tube from respective molding cavity
CN119634734	(SHIH) SEIKO EPSON CORP [JP]	Arrangement mechanism for changing arrangement of three or multiple molded products, has first base movement unit that changes relative position of first base to second base between first position and second position
US2025050561	(RAYS) RAYSPERT PREC INDUSTRIAL INC [TW]	Co-injection molding structure for use in injection molding of plastic materials or resins of different colors, has valve needle provided with first opening corresponding to first runner, second opening corresponding to second runner, first valve and second valve
CN119489536	(SUMH) SUMITOMO HEAVY INDUSTRIES [JP]	Information processing system, has analysis unit defines characteristics of control target equipment based on derived variables and second variable, and output unit that outputs information used in controlling control target equipment based on characteristics of control target equipment
WO2025010511	(FOST) FOSTAG FORMENBAU AG [CH]	Cavity-forming core unit for injection molding tool, has core insert that is fastened with rear fastening section in core base such that central section forms front portion of central conic section of core unit
US2025052965	(TSMC) TAIWAN SEMICONDUCTOR MFG CO LTD [TW]	Molding apparatus for use during manufacturing of semiconductor device for use in high speed and secure data transmission between devices, has sensor that faces mold chase and detects alignment mark of upper portion and position of workpiece in mold chase

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN119369673	(SUMH) SUMITOMO HEAVY INDUSTRIES [JP]	Control device for use in injection molding machine, has first cavity space and second cavity space separately formed between stationary mold and movable mold during mold closing/clamping of mold unit including stationary mold and movable mold with molding material
CN119529418	(SHIH) SEIKO EPSON CORP [JP]	Molding material for molded body, comprises cellulose fibers, resin melting at specified temperature, and polyurethane
JP2025006457	(YMHA) YAMAHA MOTOR CO LTD [JP]	Producing exterior cover for straddled vehicle E.G. motorcycle, involves preparing decorative film and setting decorative film in mold having protrusion on its inner surface, injecting resin material into mold, and performing injection molding to form stack structure
GB2631911	(DAIM) MERCEDES BENZ GROUP AG [DE]	Window assembly for use in vehicle, such as passenger vehicle, comprises receptacle in which window guide rail manufactured separately from carrier element is arranged, where window guide rail is configured to guide movable window
CN119328984	(HOND) HONDA MOTOR CO LTD [JP]; (NIKL) JAPAN STEEL WORKS LTD [JP]	Injection molding device E.G. direct-injection molding machine, for fiber-reinforced resin, has resin feeder feeding resin into heating cylinder, long fiber feeder feeding long fiber into cylinder, and assister assisting in contact between resin melted by cylinder and long fiber fed into cylinder
JP2025030637	(SHIH) SEIKO EPSON CORP [JP]	Injection molding device for molding article, has injection section for injecting molding material containing thermosetting material and polymerization initiator, and moving section for moving injection section relative to mold
WO2025021729	(COMP) SAINT GOBAIN [FR]	Glazing unit E.G. roof glazing unit for vehicle, has bonding surface that is juxtaposed with reference surface parallel to bonding surface, where reference surface is contaminated by release agent and bonding surface is continuous with reference surface or set back relative to reference surface
CN119458784	(NIKL) JAPAN STEEL WORKS LTD [JP]	Mold for use in mold clamping device of injection molding machine for molding molded article, has guide pin configured to protrude tip end from parting line and to retract into guide pin housing hole by drive mechanism

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025091265	(SREX) SUNREX TECHNOLOGY CORP [TW]	Method for manufacturing keycap by E.G. UV lamp for drying, involves spraying protection material that is transparent onto surface paint coating layer, and forming second protection layer that is transparent on processing surface using screen printing device
US2025065548	(HANG, HYMR, KIAK) HYUNDAI MOTOR CO LTD [KR]; KIA CORP [KR]; HANGUK MOLD CO LTD [KR]	Mold device for manufacturing cylinder for hydrogen storage tank of E.G. fuel cell electric vehicle, has inner mold part including inner mold provided to be moved between molding position and exit position deviating from molding space
WO2025027102	(MATE) MATERIACT [FR]	Injection molded part comprises first polypropylene having polypropylene homopolymer and/or polypropylene copolymer having specified melt flow index, natural fibers having specified average length, second polypropylene and elastomer
DE102023207358	(BOSC) BOSCH GMBH ROBERT [DE]	Device for controlling temperature of mold of screw-piston injection molding machine, has Peltier element that is supplied with direct current with opposite polarity to cool down tool insert portion when reduction in tool temperature is required
US2025073971	TOYO MACHINERY & METAL [JP]	Molding machine
US2025033770	GOODRICH CORP [US]	Guide roller with enhanced chip, cut, and abrasion resistance for cargo doorway entrance
CN119458987	(GENK) GM GLOBAL TECH OPERATIONS LLC [US]	Method for forming Diesel Exhaust Fluid tank for holding Diesel Exhaust Fluid in vehicle, involves providing tank shell made of first material, and fabricating composite shell using skeletal structure comprising second material on tank shell
GB2632700	(MEIB) MEIBAN INT PTE LTD [SG]	Device for ejecting threaded molded component during typical injection molding process by inline counter rotating unscrew mold mechanism, has rotating breakaway slide insert connected with inline secondary drive on side of inline annular sleeve
US2025091268	GOVERNMENT OF THE UNITED STATES AS REPRESENTED BY THE SECRETARY OF THE ARMY [US]	Parabolic Mixing Nozzle
US2025076998	(DELD) DELL PRODUCTS LP [US]	Double-injection molded mouse housing for peripheral input/output devices, such as mice for use in an information handling system, such as personal computer, has first injection molded inner housing shell of ocean bound plastic of double-injection molded mouse housing

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN119261089	(NIKL) JAPAN STEEL WORKS LTD [JP]	Element I.E. cylinder head, for attaching injection nozzle to tip end of heating cylinder in injection device of injection molding machine, has flange pressing portion provided at predetermined portion and configured to press flange portion against heating cylinder
US2025073965	SUMITOMO HEAVY INDUSTRIES [JP]	Intermediate mold, mold unit, and injection molding machine
CN119427652	(NSSK) NISSEI PLASTICS IND CO [JP]	Method for molding assistance for injection molding machine in crushed material mixed material prepared by E.G. mixing virgin material, involves obtaining ratio of crushed material in crushed material mixed material on basis of virgin material plasticization time
CN119329020	(DANF) DANFOSS POWER SOLUTIONS SHANGHAI CO LTD [CN]	Mold opening-closing hydraulic loop for injection molding machine, has working oil cylinder controlled to execute different actions by adjusting proportional valve to different working states, so as to control injection molding machine
DE102023207484	(BOSC) BOSCH GMBH ROBERT [DE]	Connection device for multiphase electrical machine, has E.G. busbar element which is designed to be electrically coupled at first end to stator connection of electrical machine and to be electrically coupled at second end to connection element of inverter
DE102024120552	(ASAG) AGC INC [JP]	Resin frame-attached glass panel for use in vehicle, has resin frame whose outer end portion has covering portion covering side wall of trim strip and located on inner side of resin frame-attached glass panel with respect to boundary between design portion and side wall
CN119456989	(TOYT) TOYOTA MOTOR CO LTD [JP]	Die casting device, has cam mechanism for allowing ejector element to move relative to slide core as slide core moves or allowing element to be moved with slide core, where element is configured to release molded article from slide core
DE102023120763	(KURZ) LEONHARD KURZ STIFTUNG & CO KG [DE]	Plastic article used as insert element for back-injection molding in injection molding process or injection molded body, has deformation region in which electrically conductive connection of heating wire in first region is produced via connecting element
CN119261088	(NIKL) JAPAN STEEL WORKS LTD [JP]	Injection nozzle for use in injection device of injection molding machine, has rear end portion temperature sensor for measuring temperature in rear end portion of nozzle main body attached to heating cylinder, and sensor device inserted into sensor hole

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN119635914	(TSRC) TSRC CORP [TW]	Manufacturing stopper with septum used for medical container, involves creating septum using first molding process with thermoplastic elastomer composition, creating housing using second molding process with plastic composition, by second molding process septum
DE102023119098	(SARS) SARSTEDT AG & CO KG [DE]	Method for setting total density of solid separator for separating components of body fluid, involves adjusting inserted volume of materials of solid-state separator depending on determined current densities of two materials so that value of total density of separator corresponds to target value
US2025073967	SUMITOMO HEAVY INDUSTRIES [JP]	Intermediate mold, mold unit, and injection molding machine
EP4484114	(INEG) SIMOLDES ACOS S A [PT]; (SIMO) INEGI INST DE CIENCIA E INOVACAO EM ENGENHARIA MECANICA E ENGENHARIA INDUSTRIAL [PT]	Computer-implemented method for manufacturing injection mold for alignment of mold parts, involves receiving digital model of initial injection mold, where digital model does not include interlocks
WO2025022051	(TIAM) TIAMA [FR]	Method for tracking E.G. bottles transported on conveyor track, involves obtaining sequence of inspection results for set of containers transported consecutively on conveyor track using container inspection apparatus
DE102023124208	(FREU) FREUDENBERG CARL KG [DE]	Method for producing plastic component used as transport and control system for material, energy and information flows and waveguide antenna, involves manufacturing plate-shaped partial elements using thermoplastic foam injection molding process and bonding together layer by layer to form component
EP4494781	(GEAL) GEALAN FORMTEILE GMBH [DE]	Divisible casting tool I.E. injection molding tool, for producing molded part E.G. valve housing, has mold core partially disengaged from hollow inner geometry essentially linearly along disengagement axis relative to molded part produced
WO2025056895	(NIVE) NICOVENTURES TRADING LTD [GB]	Method of fabricating portion for aerosol provision system, involves releasing hardened plastics material from mold to obtain portion having textured surface, and injecting liquid plastics material from which portion is to be formed into mold



Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN119309911	(UEDA) UEDA KENJI [JP]	Resin molded article I.E. resin portion, for use in industrial product, has multiple beam-shaped portions for providing different maximum bending stresses in bending free end by predetermined amount in second direction intersecting first direction
CN119550587	(TOXY) TOYO MACHINERY & METAL [JP]	External signal control device for use in molding machine I.E. die casting machine, for controlling signal related to I.E. oscilloscope, has device body for controlling signal port so as to cause signal port to not function if signal port use flag is OFF
US2025076641	(VLVE) VALVE CORP [US]	Eye tracking system for use with E.G. virtual reality headset, of head-mounted display system for tracking gaze direction of user in human-machine interaction, has optical light guide operated to transport light and mechanically connected to optical tube assembly
US2025050567	(LIUW) LIU WEIDONG [US]	One-time injection molding preparation method for imitating human bone samples, involves mixing basic masterbatch with filler, foaming agent and glass microsphere to obtain raw material of injection, which further injected into mold in injection molding machine to obtain human bone imitation sample
WO2025038577	(SIGS) SIG SAUER INC [US]	Method for forming a base housing of targeting sight for firearm, involves curing material injected into injection mold, and removing cured material and encapsulated metal components from injection mold as single unit
EP4484116	(KAWA) KAWAMATA YUJI [JP]	Resin molded article E.G. resin part, for use in E.G. electronic products, has holder portion in which test piece is detachably installed, where degree of deterioration of article is determined using test piece removed from holder portion
WO2025045898	(POLY) POLYMAC B V [NL]	Handle fitting system for fitting handles to pails, has handle gripper that fits handle in handle fitting location to pail supported in fitting position, and module control system that controls two modules when docked in docking station
WO2025022308	(RUIV) FERREIRA RUIVO SANDRA SOFIA [PT]; FERREIRA RUIVO CATIA SUSANA [PT]	Method for injecting portions into components I.E. silicone rubber, involves locating mobile element on fixed side or on mobile side of mold after partial or total injection of first component, and moves until it reaches recessed position

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
FR3151315	(FIVE) 5G [FR]	Container for storing E.G. liquid medicine, is in form of polypropylene tube and is sealed with aluminum film
EP4506136	(INGL) INGLASS S P A [IT]	Component for injection molding apparatus, has central cavity in fluid communication with injection channel to send molten material, internal channel in proximity of respective outlet develops so as to introduce molten material into central cavity according to introduction direction directed
EP4512596	(RITT) RITTER GMBH [DE]	Plastic product I.E. cartridge for holding filling material, has product main body containing post-consumer recycled material, where post-consumer recycled material contains foreign matter content
DE102023117362	(TEXT) KAUTEX TEXTRON GMBH & CO KG [DE]	Component of housing of battery for accommodating battery component E.G. battery cell in motor vehicle, has sealing layer that is provided for sealing through openings and is materially connected to bottom of battery housing component
DE102023116761	(HENG) HENGST SE [DE]	Method for producing separator plate for aerosol rotary separator, involves using mold during injection molding with inner mold surface which defines surface structure of particle guide surface, which is essentially free of circumferential grooves deviating by up to degrees and having groove depth
US2025042615	(CHUB) CHUBBY GORILLA INC [US]	Container for holding or containing substances E.G. dry goods, oil, and waxes, has liner configured to hold substance in second recess, where liner is configured to be removably inserted into first recess and configured to be turned inside out
WO2025056998	(FAPR) FAPROSID S R L [IT]	Separating device used to separate manufactured product from sprue E.G. food product as meat product, comprises positioning element comprising rigid body comprising sprue in opening, sprue and spreader comprising first arm and second arm
CN119427646	(TOXY) TOYO MACHINERY & METAL [JP]	Data display device for displaying multiple data items related to molding operations, has second data display section that is cleared to increase vertical size of first data section if screen unsplit operation is input to input device

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4512599	(PALT) PALTECH [IE]	Method for producing article of thermoplastic polymer used in road barriers, urban furniture and containers, involves feeding solid particles of thermoplastic polymer into extruding apparatus, filling mold cavity with thermoplastic melt fed out of extruding outlet, and extracting article from mold

## Extrusión

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025012074	(UYMA) L UNIV TA MALTA [MT]	Extruder system for fused granulate fabrication three-dimensional printer system, has extrusion screw housed inside barrel and operable to drive fusible material from feeding element to nozzle, where barrel and screw are coupled to element
JP2025012945	(TOYF) TOYO TIRE CORP [JP]	Apparatus for molding cylindrical rubber unit for tire, has molding drum to which long rubber unit is moved forward after having passed through gap and on which long rubber unit turns into cylindrical rubber unit for tire
WO2025012173	(MATE) SULZER MANAGEMENT AG [CH]; (SULZ) MATERIAS S R L [IT]	Method for producing E.G. closed-cell foam as building insulation materials, involves injecting additional blowing agent through blowing agent injection units within die, and mixing polymer melt after agent is injected into mixing units
WO2025051670	VALEO VISION [FR]	Method for preparing lamp assembly, extrusion device, lamp assembly and motor vehicle
WO2025046582	(DOLA) DOLAV PLASTIC PRODUCTS COOPERATIVE SOC LTD [IL]	Thermoplastic compound used for producing article E.G. water pipes, comprises recycled or post-production cross-linked polyethylene, and polymeric binder, and has specific melt flow index
US2025091274	(BATT) BATTELLE MEMORIAL INSTITUTE [US]	Extruding polymer composite involves loading feedstock material has first and second polymer, establishing shear at interface between face of die tool and feedstock material, and extruding feedstock material through opening of die tool using plastic deformation of solid phase of feedstock material
WO2025045442	(COMP) SAINT GOBAIN SEKURIT FRANCE [FR]	Extrusion nozzle for dispensing profile strand in extrusion device utilized in automotive industry for manufacturing spacer for windshield mount, has extrusion nozzle opening that is adjacent to leg and is arranged in recess in nozzle head using extrusion nozzle housing

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102023116943	(NITL) NITTO DENKO CORP [JP]	Co-extruded laminate film for disposable hygiene articles, E.G. diapers, comprises first polymer material and second polymer material
CN119427979	(GIES) GIESECKE DEVRIENT EPAYMENTS GMBH [DE]	Producing film with security feature for a card-shaped data carrier i.e. smart cards, credit cards or payment cards, comprises providing film material with base color, providing dye, introducing the film material into extruder of extrusion device, and heating the film material to form a melt
JP2025012938	(TOYF) TOYO TIRE CORP [JP]	Apparatus for molding rubber unit, such as rubber strip, that is utilized in tire, has extruding machine that extrudes long rubber unit forward, upper, and lower forming rollers that sandwich long rubber unit extruded from extruding machines
DE102023119050	(NORS) NORDSON CORP [US]	Underwater pelletizing apparatus for producing granulate from free-flowing curable plastic, has gas inlet that is connectable to gas source for feeding gas directly or indirectly into cutting chamber in such way that fed gas interact inside cutting chamber with granulate
WO2025048695	(LIGN) LIGNIN IND AB [SE]	Composition, comprises lignin, polymer matrix, and additive which is thermoplastic elastomer and polymer matrix is polyolefin, or ester-containing thermoplastic and polymer matrix is copolymer comprising styrene and acrylonitrile or biodegradable polyester
DE202024107375	(REIF) REIFENHAEUSER MASCH [DE]	Blow head for forming a plastic melt into film tube for blown film system, has annular nozzle with annular gap from which melt exits in ring shape, and annular nozzle has internal attachment mandrel, which defines inner diameter of melt
US2025091252	BRASKEM SA [BR]	Apparatus to improve the hydrodynamics in an underwater pelletizer and system thereof
US2025019529	(DURA) DURA LINE LLC [US]	Composition of matter comprises second layer extends between and is in intimate contact with first layer and third layer such that first side of first layer is in face-to-face contact with first side of the second layer
EP4516483	(RENO) RENOLIT NEDERLAND B V [NL]	Extrusion die for producing E.G. tubular multi-layer product, has mandrel pivotably mounted in extrusion die, allowing inner lip to be moved relatively to fixed outer lip along lateral direction when mandrel is pivoted
WO2025024879	(NEXT) NEXT GENERATION RECYCLINGMASCHINEN GMBH [AT]	Processing plant for plastic material E.G. plastic waste, has first processing unit that is in flow connection with plasticizing device and second processing unit that is also in flow connection with plasticizing device

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025073975	(SKSK) SK MICROWORKS CO LTD [KR]	Heat-shrinkable film used as label on polyethylene terephthalate container including beverages and food, comprises mixed resin, where mixed resin comprises copolymerized polyester-based resin in which diol and dicarboxylic acid are copolymerized, and polybutylene terephthalate-based resin
EP4506163	(BSTW) BESTWAY INFLATABLES & MAT CORP [CN]	Sheet for inflatable product such as inflatable pad, inflatable pool, inflatable toy, and inflatable sofa, comprises fabric layer, adhesive layer, and substrate layer, which has first layer, which comprises first polymer material and second layer, which comprises second polymer material
EP4524299	(FARE) FARE S P A A SOCIO UNICO [IT]	Spinning head for plant for making synthetic filaments, comprises distribution chamber comprising insert adapted to limit volume available for passage of material within distribution chamber from feed channel towards distribution channels
WO2025017117	(PETF) TOTALENERGIES ONETECH [FR]	Production of article being multilayered hollow article E.G. molded article, involves forming article comprising layers made from provided composition prepared from recycled-containing polyethylene composition and recycled polyethylene resin having preset melt index
US2025083372	(UNEN) UNIV NORTHEASTERN [US]; (USSA) UNITED STATES ARMY RES LABORATORY [US]	Apparatus for producing oriented anisotropic polymer film used in periodic extensional flow reactor system, has flow obstacle having second end extending through opening and within interior volume of curved enclosure and first end rigidly coupled to mounting plate
WO2025008437	(BEAU) BEAULIEU INT GROUP NV [BE]	Manufacture of multilayer polyvinyl chloride floor covering intermediate sheet for cushion floor coverings, involves mixing first and second batch of recycled polyvinyl chloride material to form blend, processing to form film, providing intermediate layer, heating to cause film to expand
DE102023206980	(WERN) COPERION GMBH [DE]	Discharge device used for texturing food composition, preferably meat substitute composition, comprises outer shell surrounding inner core, flow channel, which is formed between inner core and outer shell, feed opening for feeding food composition into flow channel, and discharge opening
WO2025032010	(INGE) INGENIA POLYMERS INT S A [LU]	Reducing or removing melt fracture or die lip build-up in extrudable polyolefin extrusion process involves using poly(vinyl ester) or vinyl ester copolymer as polymer processing aid during extrusion

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025010535	(FMCC) FMC TECH INC [US]	Method for producing pressure containing pipe for containing E.G. pressurized hydrogen fluid, involves forming fragments into pressure containing structure by forming process for producing pressure containing structure
DE202025100069	(VMIH) VMI HOLLAND BV [NL]	Tire component manufacturing plant for manufacturing cord reinforced tire components, has embedding section that has extruder station for extruding body of elastomeric material and cord feed station for feeding cords to extrusion station
WO2025050155	(FOUR) 4NEXT GENERATION GMBH [AT]	Gearbox for driving extruder screws of extrusion device such as co-rotating twin-screw extruder, has output gear designed as beveloid or hypoloid gear, where axis of rotation of output gear is different from axis of rotational rotation of distributor shaft
CN119427877	(NYPC) NAN YA PLASTICS CORP [TW]	Producing composite transparent board involves respectively feeding resin into extruder to correspondingly form composite transparent film, sequentially passing composite transparent film through forming wheel to form composite transparent board
WO2025040342	(SABI) SABIC GLOBAL TECHNOLOGIES BV [NL]	Pellets used for forming reinforced article E.G. pipe, comprise core comprising glass filaments extending in axial direction and polymer sheath which is free of filaments and comprising aliphatic polyamide applied around core, and are free of coupling agent and/or impregnating agent
WO2025064563	(BATT) BATTELLE MEMORIAL INSTITUTE [US]	Method for performing shear-assisted extrusion for solid-phase processing of feedstock materials e.g. billet, for extrusion applications, involves extruding first unit of billet material through opening of die tool in response to first rotational shearing force and first axial extrusion force
CN119391144	(NYPC) NAN YA PLASTICS CORP [TW]; NAN YA PLASTICS CJORPORATION [TW]	Resin composition used for making products used in high heat and/or high external stress environments such as industrial connectors, fans, relays, etc, comprises polyester, antioxidant, flame retardant, filler reinforcement, and compatibilizer
US2025058549	(TORA) TORAY PLASTICS AMERICA INC [US]	Film having coextruded multi-layer composite useful in food packaging, comprises core layer having polyhydroxyalkanoate resin/polylactide resin, and modifier X comprising biodegradable polymer, and cap layer comprising polymer
US2025001743	(ALBY) ALBANY INT CORP [US]	Forming industrial fabric, E.G. conveyor belt, papermachine clothing, involves providing linear components disposed in machine direction of fabric, and extruding first layer of polymeric matrix material encapsulating linear components forming first layer with first external and internal sides

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025003008	(CVST) COVESTRO DEUTSCHLAND AG [DE]	Extruding polymer comprises E.G. providing particulate polymer starting material comprising polymer and water in extruder, and extruding the material through nozzle of the extruder
CN119491975	(TOZA) TOYODA GOSEI KK [JP]	Vehicle-coolant heat insulating tube for use in vehicle, such as electric motor, has flow path formation layer for defining and forming flow path for vehicle coolant, where porosity of formation layer is smaller than specific percentage
WO2025002814	(HILT) HILTI AG [LI]	Method for operating squeezing device or dispensers, involves subtracting volume from calculated internal volume of bore to filling volume, and setting determined filling volume in squeezing device to output subsequent squeezing process
DE202024002414	(IPSI) IPS INTELLIGENT PELLETIZING SOLUTIONS GMBH & CO KG [DE]	Device for strand guidance in cutting head for producing evenly cut granulate sections from strands of brittle material used in plastics processing, has components that are designed in such way that existing cutting heads is easily converted, strand guidance does not necessarily run horizontally
US2025044504	(INCO) INCOM INC [US]	Filament used as feedstock in three-dimensional printing of optical device and capillary device, comprises strand-like structure including one or more of elongated side-by-side core/cladding sections each having an optically transmissive inner core
US2025026043	(CHAM) CHAMBERS CHAUNCEY E [US]	Method for making composite lumber, involves obtaining natural materials from renewable sources, separating them into different size groups, and preheating both polymer and natural materials, involves blending the smallest materials with polymer, combining with larger materials, adding a curative
WO2025040343	SABIC GLOBAL TECHNOLOGIES BV [NL]	Flame retardant glass fiber reinforced pellets, production method thereof and reinforced article obtained therefrom
US2025058510	(SFHG) SAN FANG CHEMICAL IND CO LTD [TW]	Composite material comprises laminated structure formed by co-extruding thermoplastic elastomer and modified thermoplastic elastomer
JP2025031660	(IDEL) IDEL CO LTD [KR]	Transparent plastic sheet used to block ultraviolet and infrared rays, comprises base layer including thermoplastic polymer, and skin layer provided on one or each side of base layer and including thermoplastic polymer, ultraviolet blocking agent, antioxidant and infrared blocking agent

## Otros Procesos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025100811	KRONES AG [DE]	Apparatus and a method for processing beverage containers
WO2025051892	ILLIG HOLDING GMBH [DE]	Forming apparatus and method for forming a thermoplastic semi-finished product
EP4523874	GRUPPO MECC LUCIANI S R L [IT]	Process for the reuse of molding waste of plastic material, in particular eva and product obtained with said process
DE102023118114	(KROE) KRONES AG [DE]	Device for transporting containers E.G. Plastic bottles, comprises second transport unit and third transport unit are designed, such that containers can be transported to third transport unit either with second transport unit or with further transport unit
US12186967	(DRAG) DRAGULINESCU IONEL DAN [RO]	Multi-cavity mold for thermoforming machine used in process of continuous thermoform of thin-gauge plastic products, such as trays used in packaging industry from preheated thin-gauge thermoplastic sheet, has upper tool and lower tool that are arranged in cooperating manner
WO2025031941	(SIDL) SIDEL PARTICIPATIONS [FR]	Molding unit for manufacturing container such as bottles from plastic preform E.G. Thermoplastic such as polyethylene terephthalate (PET), has mold base channels opening into central channel, which extend in line with orifices of insert when insert is in retracted position
US2025033266	(JIAN) JIANG JINGLEI [CN]	Method for manufacturing blow-molded panel for making tables and chairs, such as tabletop panels, prepared by blow molding process, involves heating first polymer and second polymer until first and second polymers are in fluid state
US2025091284	SPIGEN KOREA CO LTD [KR]	Film attaching device
US2025026556	(COTW) CO2PAC LTD [NZ]	Method for processing hot-filled plastic container to increase internal pressure, involves engaging surface of mechanical rod, pusher or punch-like device in retracted position against contact surface on underside of push-up portion and above contact surface of container
US2025010537	(UTBA) UT BATTELLE LLC [US]	Method for performing hybrid additive manufacturing and thermoforming of thermoformed structures such as automotive parts, involves allowing polymer sheet to cool while in contact with mold to form reinforced thermoformed article and removing reinforced thermoformed article from mold



Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN119329098	(KROE) KRONES AG [DE]	Container processing device for manufacturing and processing preform, has container processor and control unit are provided in transport direction of preform downstream of manufacturing machine, and control unit is formed to control flow of preform in container processing device
DE102023119042	(KROE) KRONES AG [DE]	Container treatment system for producing containers made of plastic materials used in food and beverage industry, comprises production machine for producing preforms, and robot is provided for transferring preforms from shaping tool of production machine for producing containers from preforms
CN119458922	(ZJTD) BEIJING ZITIAO NETWORK TECHNOLOGY CO LTD [CN]	Device for pasting film on curved surface of lens in glasses for VR applications E.G. Map, has illumination module configured to irradiate functional film material, so that adhesive layer between functional film material and lens is cured, and functional film material is adhered and fixed to lens
WO2025031922	(SIDL) SIDEL PARTICIPATIONS [FR]	Molding unit for manufacturing bottle from E.G. Polyethylene terephthalate, has mold base mounted on saddle, where saddle comprises lower stage and upper stage, and cooling circuit comprising conduits in which cooling fluid circulates
US12214543	(LIZZ) LI ZIQIANG [CN]	Auxiliary device for applying protective film to electronic device screens such as mobile phones to protect electronic device, has two limiting rings fixedly installed inside accommodation cavity, where side of film application box is provided with protective film
DE102023119039	(KROE) KRONES AG [DE]	Container treatment plant for producing containers, has push-off device configured to receive multiple preforms produced by production machine and to feed them in orderly manner to container production unit for producing containers from preforms
DE102023117156	(KROE) KRONES AG [DE]	Method for forming plastic preforms into plastic containers, involves introducing plastic preform into forming station when the forming station is located in input area and then this forming station equipped with plastic preform, which is transported to output area
DE102023125375	(WAFI) WAFIOS AG [DE]	Bending mandrel for thermoplastic pipe material with inner cross-section, has switching device, that acts on mandrel head and brings mandrel into state, which is rigid relative to vertical to support heated pipe material during transport

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025054018	(AMRE) AMERICAN REGAL REMODELING LLC [US]	Vinyl sheet heating and bending apparatus for arcuately contouring edge of planer vinyl composite element, has rotatable actuator arm coupled to roller assembly for displacing roller assembly through predetermined and adjustable distance
DE102023119048	(KROE) KRONES AG [DE]	Plant for treating container E.G. Bottle for filling beverage, has transport device which is set upstream of blow molding machine for transporting preforms to blow molding machine, and production machine and sorting device, that are designed for redundant transfer of preforms to transport device
DE102023119059	(KROE) KRONES AG [DE]	Container treatment plant for producing containers from preforms, has removal device that removes preforms from production machine and feeds preforms to transport device used for transporting preforms to blow molding machine, and inspection device that inspects preforms in removal device
BE1031806	PLASTIC OMNIUM ADVANCED INNOVATION & RES [BE]	Plastic fuel tank I.E. Petrol tank, for motor vehicle, has shell arranged with two zones, which are delimited by joint plane, where shell is arranged with peripheral wall, and reinforcing element of peripheral wall is connected to tank
DE102023119038	(KROE) KRONES AG [DE]	Container treatment plant for producing containers E.G. Plastic containers, used in food and beverage industry, has distribution apparatus for receiving preforms in orderly manner in form of two-dimensional matrix arrangement and transferring preforms to air conveyor
US2025026068	(AURI) AURIA SOLUTIONS UK I LTD [GB]	System for forming three-dimensional non-woven structure I.E. Three-dimensionally shaped automotive sound insulator at E.G. Dashboard for vehicle, has conveyor for delivering nonwoven substrate into steam heating chamber and mold
US2025074681	(RING) RING CONTAINER TECH LLC [US]	Method for manufacturing packaging configured to deliver E.G. Oil with polyethylene terephthalate bottle supported within corrugated box, involves blowing or stretching temperature conditioned preform into blow mold to form container
CN119305173	(KROE) KRONES AG [DE]	Apparatus for forming plastic preforms into plastic containers, has monitoring device for checking state of wear of one of valve devices, where monitoring device includes detection device for detecting wear state of valve device
US2025001721	(GLDP) GLAD PRODUCTS CO [US]	Thermoplastic bag comprises first sidewall and second sidewall joined together along first side edge, second side edge, and bottom edge, opening opposite bottom edge, and pattern of raised rib-like elements and web areas formed in first sidewall

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025012419	(SIDL) SIDEL PARTICIPATIONS [FR]	Method for manufacturing hollow body made of polyethylene terephthalate in state of final containers by stretch-blow molding of hollow body, involves recovering forming fluid by connecting hollow body to second recovery tank
BE1031815	NORDITUBE TECH SE [BE]	District heating pipe renovating method, involves positioning tubular sheath impregnated with hardenable resin by reversion in pipe, and positioning layer inside pipe, where sheath comprises stack of layers
DE102023123968	(SALZ) KHS GMBH [DE]	Transport mandrel for container treatment system for heating device in blow molding machine used for forming beverage containers, i.e. Beverage bottles from preforms, has head section including contact region against which container rests in holding state and vacuum device designed to hold container
CN119489547	(BRKM) BRUECKNER MASCHBAU [DE]	Partial opening device for pre-opening of grippers of stretching unit used in production of plastics films, has partial opening disk comprising circumferential surface comprising rotating contact surface engaged with blade flap of gripper guided past partial opening disk when blade flap
WO2025021906	(WHAT) WHAT THE FUTURE B V [NL]	Machine used in continuous production of molded product, comprises production direction comprising forming station with shaped master mold, filling station suited to add liquid curable composition to shaped recess of shaped plastic film mold, and pressing station
CN119329038	(KROE) KRONES AG [DE]	Container treatment system for regulating temperature of preform used in production of containers from preforms, has control unit to regulate operating parameter of component of container treatment system based on actual temperature of preform at position upstream of blow molding machine
CN119567596	(HOND) HONDA MOTOR CO LTD [JP]	Method for manufacturing high pressure tank that is mounted on fuel cell vehicle and stores hydrogen gas to be supplied to fuel cell system, involves performing winding process, such that tension of fiber bundle is reduced toward outer circumferential side of reinforcing layer
WO2025004055	CREATIVE PROPACK LTD [IN]	A method of producing plastic containers
US2025073539	(ACUS) ACUSHNET CO [US]	Coating free, finished golf ball for retail and ordinary play, has cover defining outermost surface of coating free, finished golf ball, such that cover is bare, and ionomer casing formed between core and cover

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4497345	(SFBS) S F B S R L [IT]	Machine for thermoforming shoe upper fitted on rigid last positioned in elastomeric sheath in sports, has transporting unit that transports upper within boiler in heat treatment position partially external to vertical projection of inlet and outlet opening of lid
FR3152425	(OREA) OREAL [FR]	Injected preform for transferring preform into blow mold, has axial gripping portion that is provided with gripping relief adapted to cooperate with jaws of gripping tool to ensure gripping and transfer of injected preform to mold with non-zero overlap in projection on longitudinal axis
US2025018638	(RING) RING CONTINER TECH LLC [US]; RING CONTAINER TECH LLC [US]	Method for manufacturing packaging container I.E. Plastic blow-molded container, for storing food and beverage products, involves molding article including selected configuration and including body defining volume, neck and dome, where second axis perpendicularly oriented relative to first axis
DE102023119051	(KROE) KRONES AG [DE]	Container processing system for producing containers from preforms, has first transport device for transporting preforms along transport direction to heating device, and second transport device for transporting heated preforms from heating device to blow molding machine
WO2025061500	(SGNF) SIGNIFY HOLDING BV [NL]	Elongate lighting device for providing artificial light, has reflective layer that is configured for facing interior housing volume, sidewall that is provided with one or more apertures through stack of layers to define one or more light exit windows for elongate lighting device
WO2025032262	(SUBT) SUBSEA 7 LTD [GB]	Host pipe providing method, involves applying barrier layer to inner liner or outer liner, and radially expanding inner liner within host pipe to press against interior of outer liner through barrier layer
CN119283255	(BRKM) BRUECKNER MASCHBAU [DE]	Nozzle box device for oven of stretching unit E.G. Transverse direction orienter for use in film transport system, has supporting device provided with first and second supports, and nozzle box connected to first and second supports
EP4501587	(TABM) INT TOBACCO MACHINERY POLAND SP ZOO [PL]	Apparatus for bending drinking straws for use in food industry, has bending element adapted for bending straws around thrust element, where bending element is attached on front surface of conveyor and/ or attached to working surface of conveyor
US2025074105	(ARTO) ARTOBOTICS LLC [US]	Method for enhancing image E.G. Photograph, involves applying three-dimensional artistic embellishments with attributes to area of image on sheet, and modifying image in digital file in area to resemble attributes

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025035127	(UVIR) UNIV VIRGINIA PATENT FOUNDATION [US]	Method of forming article using elasto-capillary rolling transfer in direct three-dimensional (3D) printing, involves forming pattern on curvilinear substrate with pliable material by advancing pliable material onto curvilinear substrate at initial orientation angle and advanced orientation angle
CN119329037	(KROE) KRONES AG [DE]	Control circuit for controlling light transmittance of container E.G. Polyethylene terephthalate container of heating device, has control circuit for controlling light transmittance of container, and second measuring device for determining actual light transmittance of container
DE102023118677	(NORA) NORAFIN TECH GMBH [DE]	Producing pocket-shaped structure from fiber composite material used for producing glove, involves folding fiber composite material by placing first and second layer of fiber composite material on top of one another and are connecting via fold, and connecting additionally first and second layer
AT527407	(DENT) DENTAL MFG UNIT GMBH [AT]	Method for production of thermal-formed plastic portion such as tooth rail on basis of semi-finished plastic product, involves fixing model form in its position by clamping fixing extension, before forming step, and releasing fixing extension again, after demolding plastic portion
CN119447626	(SKSK) SK ON CO LTD [KR]	Folding pouch of secondary battery used as power sources for wireless mobile electronic devices, involves applying heat to wing of cell pouch to obtain heated wing
DE102023207064	(LINR) DORNIER GMBH LINDAUER [DE]	Stretching system for plastic films, has temperature control device that is configured for performing heat recovery at temperature level which is so high that condensation of oligomers on heat transfer surfaces of heat exchanger does not occur
EP4523895	(RAYT) RTX CORP [US]	System for forming multiple braided preform segments, has radial braider that winds fibers onto mandrel assembly to form continuous braided article, where applicator applies polymer binder to braided article, while mounted on mandrel assembly
CN119489582	(VMIH) VMI HOLLAND BV [NL]	Let-off station for supplying radio frequency identification tags to tire building machine, has scraper positioned in scraping position along liner path, where liner is free to move away from scraper at side of liner opposite to scraper
US2025032220	(UKSA) UNIV KING SAUD [SA]	Method for forming orthodontic retainer for maxillary upper teeth made of first and second materials, involves applying second material which covers palatal portion of cast and number of holes drilled in first material, and curing second material to form bond with first material

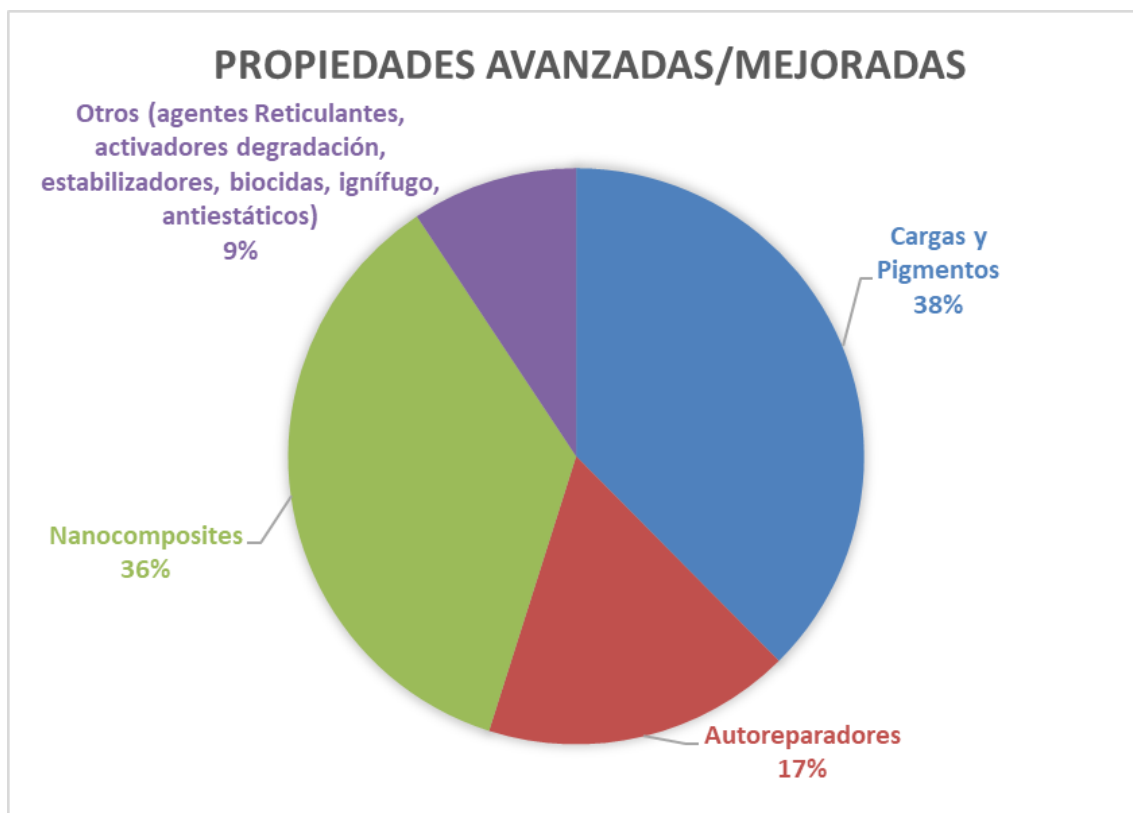
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025012212	(CARP) CARPENTER ENG FOAMS BELGIUM BV [BE]	Manufacturing shaped high-density foam flake composite product, involves heating semifinished sheet product to temperature so that binding agent bonding adjacent foam flakes is brought into molten state
CN119329099	(KROE) KRONES AG [DE]	Container processing device, comprises manufacturing machine for manufacturing preforms, where control unit is configured to synchronize first operation of manufacturing machine and second operation of container handling machine with each other
WO2025056306	(SIDL) SIDEL PARTICIPATIONS [FR]	Decontamination device of station for heating preforms for decontaminating preforms made of thermoplastic material, has heating unit which is configured for heating opposite wall to prevent condensation of decontamination agent on internal face of opposite wall
EP4501419	(EAYT) EATON INTELLIGENT POWER LTD [IE]	Golf club grip, for example, hockey stick, lacrosse stick, fishing rod, hand tool, or other appropriate shaft with attached grip, comprises grip comprising body surrounding interior volume, interior surface of body, and adhesive film coated onto interior surface of body
EP4516474	(BOEI) BOEING CO [US]	Method for manufacturing composite parts, involves shaping conformable material using tool, forming desired wrinkle configuration in conformable material, and providing tool with curved region with undulations in portion of curved region
CN119502366	(FAUR) FAURECIA CHINA HOLDING CO LTD [CN]	Manufacturing interior panel, involves heating panel base part of interior panel to first temperature, and stacking heated panel base part and panel surface part on first mold for press-molding
CN119427779	(BOEI) BOEING CO [US]	Method for stamp-forming fiber-reinforced thermoplastic composite assembly of composite closed-contoured torsion box i.e. Wing tip, for aircraft, involves co-consolidating skin blank and spar within stamp press, and forming fiber-reinforced thermoplastic composite assembly
US2025100941	RTX CORP [US]	Auxetic materials and structures for ceramic matrix composite airfoil mandrels
WO2025032260	(SUBT) SUBSEA 7 LTD [GB]	Method for manufacturing barrier liner for pipe, involves covering welded seam and conjoined peripheral strips with polymer infill on radially inner side and radially outer side of foil that bridges between sides of polymer layers

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025032180	(SIKA) SIKA TECH AG [CH]	Waterproofing substrate comprises applying adhesive element to surface of substrate, pressing element against substrate with pressure, removing liner and covering element with membrane, and pressing membrane against surface
WO2025032261	(SUBT) SUBSEA 7 LTD [GB]	Method for manufacturing E.G. Subsea flowlines, for pipe, involves inserting, spraying, depositing, plating, or applying elongate continuous metallic tubular barrier layer into host pipe lined internally with polymer outer liner

VOLVER A  
CONTENIDO

## MATERIALES CON PROPIEDADES AVANZADAS O MEJORADAS

En el siguiente gráfico se muestra la distribución de las 889 familias de documentos de patente recuperadas en este trimestre en el apartado de Materiales con propiedades avanzadas o mejoradas. En este trimestre, el volumen de documentos de patente a nanocomposites sobresale seguido por cargas y pigmentos y autoreparadores.





Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

## Cargas y Pigmentos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
<a href="#">WO2025004453</a>	(NAMI) NAMICS CORP [JP]	Liquid compression molding material used for forming electronic component E.G. Semiconductor device, comprises epoxy resin, curing agent, inorganic filler, and vinyl polymer
<a href="#">WO2025007205</a>	(POLY) POLY NOVA TECH CORPORATION [CA]	Flexible elastomeric material for E.G. Electric vehicle, comprises siloxane gum, silica reinforcing filler, silica extending filler which forms siloxane base, viscosity control agent, flux agent, glass fiber filler, hydrous aluminum silicate filler, silicon carbide filler and peroxide crosslinker
<a href="#">WO2025018393</a>	(FUJF) FUJIFILM CORP [JP]	Film used for forming laminated film for laminated sheet for printed wiring board, comprises resin and filler chosen from inorganic filler and organic filler, and has preset ratio of number of filler per unit area in in-plane direction to number of filler per unit area in thickness direction
<a href="#">WO2025018269</a>	(SUMO) SUMITOMO CHEMICAL CO [JP]	Resin composition used for forming pellets for producing molded article, comprises liquid crystal polyester containing monomer unit which has condensed aromatic ring and monomer unit which has benzene ring and styrene-based resin having preset dielectric loss tangent
<a href="#">WO2025018363</a>	(MITU) MITSUBISHI CHEM CORP [JP]	Laminate used for E.G. Disposable plastic shopping bag, comprises base layer and seal layer comprising resin composition containing aliphatic polyester-based resin containing repeating structural unit derived from aliphatic diol
<a href="#">WO2025023180</a>	(SHOW) RESONAC CORP [JP]	Resin composition used for manufacture of component for high frequency device and antenna in-package, comprises epoxy resin, active ester compound as curing agent, high dielectric inorganic filler, and cyclic carbodiimide compound
<a href="#">WO2025022933</a>	(SHOW) RESONAC CORP [JP]	Resin composition used for forming semi-cured product for prepreg and resin film, comprises thermosetting resin, polymer having hydrocarbon chain or polyether chain, phosphorus compound-based flame retardant and flame retardant, where flame retardants optionally contain filler flame retardant

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025028496	(BRID) BRIDGESTONE CORP [JP]	Production of rubber composition used for forming product E.G. Rubber hose, involves kneading natural rubber, synthetic diene rubber, filler containing plant-derived silica, silane coupling agent, and compound for promoting reaction between silica and silane coupling agent, in multiple stages
WO2025028152	(MATU) PANASONIC IP MAN CO LTD [JP]	Resin composition used for forming resin layer of resin film material for printed wiring board, comprises thermosetting resin component containing liquid epoxy resin, phosphorus-containing flame retardant containing aromatic condensed phosphate ester compound, and inorganic filler
WO2025028621	(ASAH) ASahi CHEMICAL IND [JP]	Modified conjugated diene polymer used for e.g. Rubber composition, has preset Mooney viscosity, Mooney relaxation rate, glass transition temperature and silicon atom, nitrogen atom and antioxidant content
WO2025033098	(SHIE) SHINETSU CHEMICAL CO [JP]	Liquid silicone rubber composition used for forming liquid silicone rubber cured product, comprises liquid organopolysiloxane containing two or more alkenyl groups bonded to silicon atoms in one molecule, filler having preset average particle size, 3-glycidylxypropylsilanol oligomer, curing agent
WO2025033069	(SUMO) SUMITOMO CHEMICAL CO [JP]	Thermoplastic resin composition used for forming base material for pillar member for automobiles, comprises coloring component containing (meth)acrylic resin, acrylonitrile-styrene-acrylic acid ester resin, carbon black, and dye and pigment, and silica particles
WO2025033525	(KURS) KURARAY CO [JP]	Polyamide resin composition used for forming molded article E.G. On-vehicle connector, comprises bromine-based flame retardant, inorganic filler, colorant and polyamide having preset melting point and containing dicarboxylic acid units and aliphatic diamine units
WO2025033526	(KURS) KURARAY CO [JP]	Polyamide resin composition used for forming molded article E.G. In-vehicle connector, comprises polyamide having preset melting point, brominated flame retardant, inorganic filler, aromatic vinyl copolymer and organic colorant and inorganic colorant as colorant
WO2025033527	(KURS) KURARAY CO [JP]	Polyamide resin composition for forming molded article, comprises polyamide with aliphatic diamine units, bromine-based flame retardant having particles with preset number average value of cross-sectional area, inorganic filler, aromatic vinyl copolymer and organic colorant and/or inorganic colorant

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025037599	(CANO) CANON KK [JP]	Resin composition for forming pellet, molded article, injection-molded article and apparatus, comprises matrix composed of polar polymer, filler particles composed of inorganic material and having preset particle diameter, and elastomer particles having preset particle diameter
EP4516838	(THER) THERMOPLAST TECH PROSTA SPOLKA AKCYJNA [PL]	Mixture used for producing composite material, comprises polyamide matrix material, filler in form of basalt fiber, copper thermal stabilizer, and compatibilizer having mixture of copolymers and terpolymers of ethylene, where polyamide matrix material is made of polycaprolactam
WO2025043346	UNIV LAVAL [CA]	Method of producing a radiopaque object, and radiopaque structure therefore
WO2025047300	PANASONIC IP MAN CO LTD [JP]	Resin composition, prepreg, resin-bearing film, resin-bearing metal foil, metal-clad laminate sheet, and wiring board
EP4520164	TOYO CUSHION LANKA PVT LTD [LK]	Waterproof biodegradable coir pot with natural special waterproof coating
JP2025039021	(SHIE) SHINETSU CHEMICAL CO [JP]	Thermally conductive silicone composition used as heat dissipation material of electronic component, comprises organopolysiloxane having preset kinetic viscosity, hydrolyzable methylpolysiloxane, bismuth-tin alloy powder, thermally conductive filler, organohydrogenpolysiloxane and catalyst
WO2025058023	MITSUBISHI GAS CHEMICAL CO [JP]	Resin composition, cured product, prepreg, metal-foil-clad laminate, resin composite sheet, printed circuit board, and semiconductor device

## Autorreparador

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR102758413	(UYKR) UNIV KOREA RES & BUS FOUND [KR]	Producing self-healing polymer useful for electronic device, comprises E.G. reacting polytetramethylene glycol and diisocyanate, adding chain extender dimethylglyoxime, lowering the temperature of reactant, and adding cross-linking agent
JP2025040928	(UYPU) NAT UNIV PUSAN IND UNIV COOP FOUND [KR]	Polymer with ultraviolet-responsive self-healing function comprises first monomer containing at least two epoxy groups, and second monomer serving as curing agent, where first and second monomers are combined to enable dynamic disulfide exchange reaction, allowing for self-healing

# Nanocomposite

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2025002679	(INTE) INTERFACIAL CONSULTANTS LLC [US]	Melt processable thermoset polymer composition for a three-dimensional printed article, comprises one melt processable thermoset polymer
US2025001647	(LOCK) LOCKHEED CORP [US]	Pi-shaped preform in pi-joint assembly, comprises pair of axially elongated legs coupled to base component to define channel between axially elongated legs, where base component and pair of axially elongated legs each comprising oriented ply stack
FR3150460	(SFRA) SAFRAN NACELLES [FR]	Method for manufacturing E.G. polyamide, involves reinforcing element comprising fibers made of thermoplastic material at interlaminar interface arranged between the structures and second structure to reinforce interlaminar interface
WO2025032262	(SUBT) SUBSEA 7 LTD [GB]	Host pipe providing method, involves applying barrier layer to inner liner or outer liner, and radially expanding inner liner within host pipe to press against interior of outer liner through barrier layer
EP4508999	(SHOW) SHOWA GLOVE CO [JP]	Glove comprises globe body made of fiber, and porous coating layer formed to cover portion of surface of glove body, polyurethane resin composition comprising polyurethane and conductive carbon black, where conductive carbon black is carbon black
WO2025038830	(UYCM) UNIV CARNEGIE MELLON [US]	Additive manufacturing of object used to create various products E.G. scaffold, by depositing structure material into support material based on computer model of object, and repeating depositing step as necessary to additively form object
US2025058549	(TORA) TORAY PLASTICS AMERICA INC [US]	Film having coextruded multi-layer composite useful in food packaging, comprises core layer having polyhydroxyalkanoate resin/polylactide resin, and modifier X comprising biodegradable polymer, and cap layer comprising polymer
CN119505454	(NAMN) NANO & ADVANCED MATERIALS INST LTD [HK]	Melt-processable polyvinyl alcohol composition for injection molding and extrusion molding, comprises plasticizer for increasing plasticity of polyvinyl alcohol to achieve melt-processability, biodegradable polymer, compatibilizer, and antioxidant for inhibiting oxidation reaction
DE102024205861	(SHIB) SHIMANO KK [JP]	Outdoor component E.G., shift operating device used for human-powered vehicle and fishing equipment, comprises resin, and cellulose fiber dispersed in resin, where cellulose fiber has maximum cross-sectional length

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2025045474	(SIEI) SIEMENS GAMESA RENEWABLE ENERGY AS [DK]	Mold arrangement for producing composite preform elements for rotor blades of wind turbine built with preform building materials has heating blanket or flexible, electrically conductive and foil-like heating element to be arranged on mold for covering preform building material
US2025073985	(UTAH) UNIV UTAH RES FOUND [US]	Diffusiophoresis-enhanced particle deposition system for controlling deposition of colloids such as nanomaterials, has atmosphere control chamber that surrounds deposition surface, and solute gas supply soluble in particle-containing ink connected to atmosphere control chamber
US2025073989	(PURD) PURDUE RESEARCH FOUNDATION [US]	Manufacturing additive, preferably, forming three-dimensional nanoscale object involves exciting photoinitiator molecule from photoinitiator ground state to excited photoinitiator singlet state, transitioning photoinitiator molecule from photoinitiator singlet state
US2025073539	(ACUS) ACUSHNET CO [US]	Coating free, finished golf ball for retail and ordinary play, has cover defining outermost surface of coating free, finished golf ball, such that cover is bare, and ionomer casing formed between core and cover
US2025073987	(DRAS) CHARLES STARK DRAPER LABORATORY INC [US]	Radio frequency device, comprises interpenetrating structures of one or more composite materials including radio frequency tunable material
WO2025046394	(MINN) 3M INNOVATIVE PROPERTIES COMPANY [US]	Sheet used as thermal interface material, comprises thermally conductive electromagnetically absorbing composite material comprising polymer, electromagnetically absorbing particles and platelet-shaped thermally conductive particles
US2025083375	(REGC) UNIV CALIFORNIA [US]	Additive manufacturing involves placing polymer solution, inducing solidification of polymer through salting-out effects; and removing solidified polymer from salt solution, or mixture

## Otras propiedades

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
<a href="#">WO2025006269</a>	(TICN) TICONA LLC [US]	Polymer composition for electrical connector, comprises polymer matrix containing first liquid crystalline polymer and flame retardant system containing low-halogen polymeric flame retardant, and exhibits preset unaged rating at specific thickness, melt viscosity and melting temperature
<a href="#">CN119391144</a>	(NYPC) NAN YA PLASTICS CORP [TW]; NAN YA PLASTICS CJORPORATION [TW]	Resin composition used for making products used in high heat and/or high external stress environments such as industrial connectors, fans, relays, etc, comprises polyester, antioxidant, flame retardant, filler reinforcement, and compatibilizer
<a href="#">WO2025056911</a>	SCOTTISH LEATHER GROUP LTD [GB]; TRANS PARAGON GLOBAL LTD [GB]	Foam composition comprising partially hydrolysed collagen

VOLVER A  
CONTENIDO

# NOTICIAS

## PRESENTADO EL PLAN ESTRATÉGICO 2025-2027 DE LA OEPM: UNA HOJA DE RUTA PARA AFRONTAR EL FUTURO CON ÉXITO



El pasado 14 de febrero se presentó el Plan Estratégico 2025-2027 de la Oficina Española de Patentes y Marcas (OEPM), que constituye la hoja de ruta a seguir para continuar prestando servicio a la ciudadanía con la calidad y excelencia debidas durante los próximos tres años.

Esta nueva planificación estratégica tiene en cuenta los retos y oportunidades que brinda el futuro más inmediato, así como los recursos con que cuenta la OEPM para afrontar esta nueva coyuntura. Todo ello, sin perder de vista la misión de impulsar el desarrollo económico, la innovación y la competitividad a través del fomento del conocimiento y el uso de la Propiedad Industrial (PI).

El Plan Estratégico se compone de cuatro grandes objetivos que coadyuvarán al cumplimiento de esta misión y al mantenimiento del rigor en la prestación de los servicios públicos. Primero de todo, se establece la necesidad de promover un mayor uso estratégico de la Propiedad Industrial, acercándola a la sociedad y haciéndola más accesible. Asimismo, se pretende aprovechar la coyuntura de transformación digital que experimenta nuestro país para incrementar aún más la calidad de los servicios prestados y, con ello, la satisfacción de los usuarios.

[Más información](#)

## LA OEPM PUBLICA SUS CIFRAS DEFINITIVAS PARA EL 2024

Se han publicado desde la Oficina Española de Patentes y Marcas (OEPM) las cifras definitivas, correspondientes a las estadísticas de las distintas modalidades de propiedad industrial del 2024.

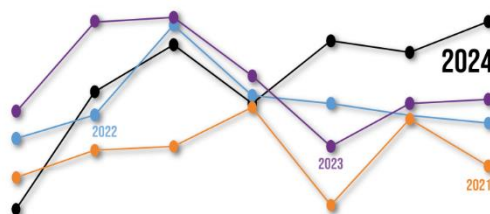
Analizando modalidad por modalidad, y en cuanto a los signos distintivos, 2024 ha sido el año con mayor número de solicitudes de registro de toda la serie histórica conjunta de marcas nacionales y nombres comerciales. Concretamente, las solicitudes de marcas nacionales crecen el 5,1% con respecto al año anterior y los nombres comerciales, el 2,1%, hasta situarse en su máximo histórico.

Respecto a las invenciones destaca el incremento, por segundo año consecutivo, de las validaciones de patentes europeas presentadas en España (+12,7%).

Las patentes nacionales, tras el repunte de 2023, descienden un 10,9% y vuelven a las cifras de 2022. Este decremento procede, sobre todo, de la caída de las patentes PCT (Tratado de Cooperación en materia de Patentes) en fase nacional, ya que las solicitudes de patente nacional suben el 2,2% respecto al año pasado.

### ESTADÍSTICAS OEPM 2024

ESTADÍSTICAS DEL AÑO 2024





Las restantes modalidades de invenciones muestran comportamientos dispares. Mientras que las solicitudes de modelos de utilidad caen un 3,7% en 2024, las de certificados complementarios de protección experimentan un crecimiento del 9,6%.

Las solicitudes de diseños industriales mantienen buenos números tras la exponencial subida de 2023. Así, aunque el número total de diseños desciende ligeramente (4,3%, cuando en 2023 hubo un incremento del 33,6% interanual), el número de expedientes continúa al alza (3,1%).

El porcentaje de concesiones asciende al 54% para el caso de patentes nacionales y al 86% en modelos de utilidad, marcas y nombres comerciales.

[Más información](#)

## ESPAÑA ES EL PAÍS DE EUROPA QUE MÁS CRECE EN SOLICITUDES DE PATENTES EUROPEAS

Cada vez un mayor número de empresas e inventores españoles adquieren conciencia sobre la importancia de proteger adecuadamente sus invenciones. Así lo reflejan los datos del Índice de Patentes 2024, un informe anual publicado por la Oficina Europea de Patentes (EPO, por sus siglas en inglés) que analiza la situación del sistema de patentes en el ecosistema europeo de la innovación y la tecnología, a través de sus cifras.



Las empresas e inventores españoles presentaron un total de 2192 solicitudes de patentes europeas en 2024, un 3% más que el año anterior. No obstante, si nos remontamos una década en el tiempo, España es el país de Europa que ha experimentado un mayor crecimiento, con un incremento acumulado del 44% desde 2015 hasta la actualidad. Esta tendencia pone de manifiesto la apuesta por la innovación de las empresas, los centros de

investigación y los emprendedores españoles, lo que les permite competir en el mercado tecnológico europeo.

España lidera, además, el listado de países europeos con mayor porcentaje de mujeres inventoras nombradas en las solicitudes de patentes europeas presentadas ante la EPO. Concretamente, el 42% de las solicitudes provenientes de nuestro país incluía, a menos, a una mujer inventora. Esta cifra es muy superior a la media de los 39 Estados miembros de la EPO, que es del 25%. España se consolida, por tanto, como el máximo referente en términos de igualdad de género en este ámbito. Respecto al origen de las solicitudes, las universidades y los centros públicos de investigación continúan jugando un papel muy destacado, siendo el Consejo Superior de Investigaciones Científicas (CSIC) el mayor solicitante de patentes europeas de nuestro país.

[Más información](#)



## LA OEPM REIVINDICA EL PAPEL DE LA MUJER EN LA PROPIEDAD INDUSTRIAL

La innovación femenina vive un momento dulce en nuestro país. Y es que España es el país de Europa que cuenta con un mayor porcentaje de mujeres inventoras, según se desprende de las cifras ofrecidas por la Oficina Europea de Patentes (EPO, por sus siglas en inglés).

La Oficina Española de Patentes y Marcas O. A. (OEPM) celebró el pasado 24 de marzo el acto 'Registrando el cambio. 50 años de innovación femenina en España' para analizar cómo ha cambiado el papel de la mujer en este ámbito y rendir homenaje a las pioneras que lo hicieron posible.

El acto, enmarcado en la iniciativa 'España en libertad. 50 años', contó con la presencia del ministro de Industria y Turismo, Jordi Hereu, encargado de su apertura y quien reivindicó que "mirar atrás sirve para celebrar lo conseguido y analizar los obstáculos que aún quedan por sortear".



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