

NIPO: 116-19-020-3

Con este Boletín correspondiente al primer trimestre de 2021, la Oficina Española de Patentes y Marcas (OEPM) inicia una nueva colaboración con AIMPLAS, Instituto Tecnológico del plástico. AIMPLAS es un Centro Tecnológico con más de 30 años de experiencia en el sector del plástico que aporta soluciones a las empresas, en toda la cadena de valor, desde fabricantes de materia prima a transformadores y usuarios finales. A través de la I+D+i contribuye a resolver los retos que se plantea la sociedad en relación a los plásticos, para mejorar la calidad de vida de las personas y asegurar la sostenibilidad medioambiental.

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.

Esta nueva andadura del Boletín se encuadra dentro de una de las actividades de colaboración que la OEPM viene llevando a cabo con diferentes centros tecnológicos para hacer llegar a las empresas e investigadores que los integran, con periodicidad trimestral, una selección de las patentes más recientemente publicadas en el sector de

transformación de materiales plásticos. Como novedad de esta etapa, se reestructura el contenido del Boletín, intentando reflejar la realidad en propiedad industrial de la Industria del Plástico desde el punto de vista de nuevos productos en los principales sectores de aplicación, desarrollos 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 esta aparece recogida en el [Boletín de Vigilancia Tecnología 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 novedades extraídas del Observatorio del Plástico junto con noticias sobre actividades relevantes de la OEPM.

Si se desea recibir este Boletín periódicamente basta con cumplimentar el correspondiente [formulario de suscripción](#)

## Contenido



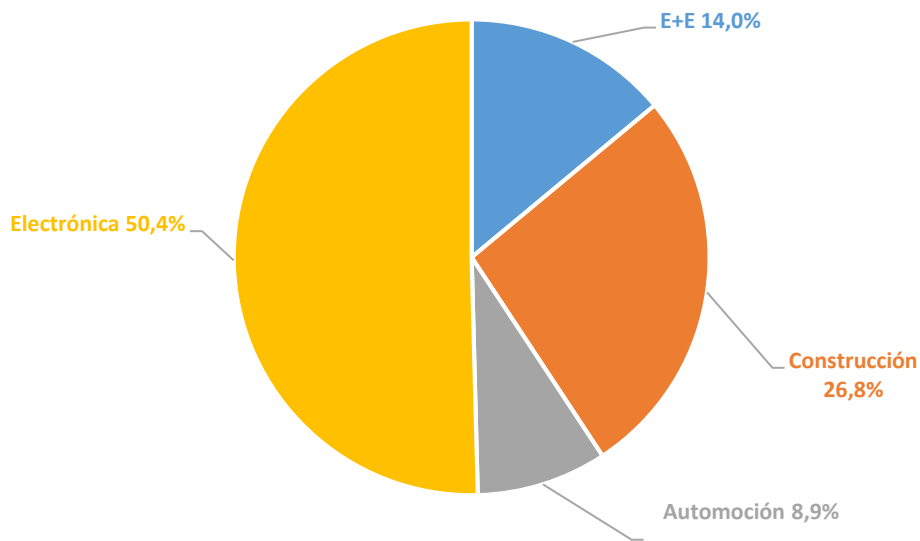
NUEVOS PRODUCTOS

SOSTENIBILIDAD Y  
ECONOMÍA CIRCULARNUEVOS PROCESOS  
INDUSTRIALESMATERIALES CON  
PROPIEDADES AVANZADAS  
O MEJORADAS

# NUEVOS PRODUCTOS

En el siguiente gráfico se muestra la distribución de las 22.213 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos Productos. Como se observa más de la mitad se refieren al campo de la electrónica.

NUEVOS PRODUCTOS



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="#">US2021070526</a>	(TILL-N) TILLAMOOK CREAMERY ASSOC	Microwavable food comprises food layers comprising foods to be maintained within predetermined temperatures, and microwave active container partially enclosing food layers, where microwave active container is configured to heat selectively
<a href="#">JP2021041983</a>	(KAOS ) KAO CORP	Packaging bag for goods, is made of synthetic-resin, where the display information, in which the packaging bag contains information regarding the goods, and the user delivery information

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021014292	(IKAI-N) IKA SRL	Single-dose cosmetic product used in packaging of face, body and hair cosmetics, comprises containment capsule and water-soluble powder comprising hydrocolloid substance, unmodified starch, oily active ingredients and unmodified clay
US2020407125	(CONT-N) CONTEMPO CARD CO	Freshness plug for storage container, has housing including malleable flanges, and unit that stabilizes housing to storage container in which plug is inserted, and inserts and removes plug from storage container in which plug is inserted
IN201921040614	(EPLN-N) EPL LTD (ESSE-N) ESSEL PROPACK LTD	Multilayer film for packaging sustainable product, comprises one print layer, one tie layer, one second tie layer and one sealant layer, multilayer film provides one polyethylene one barrier layer between first tie and second tie layer
AU2020102949	(HANN-N) HANNAY DOUGLAS PTY LTD	Plastic container for holding fresh products e.g. vegetables, has floor that is provided with ventilation openings for allowing air to flow, where major sections of pair of opposing side walls are free of ventilation openings
BR102019010600	(LANT-N) LANTECOR IND LANTEJOUAS EIRELI-EPP	Disposable pot with modular supplementary container for packaging of perishable foods and non-perishable foods, comprises a supplementary container can be mounted and locked in the bottom or upper surfaces of the lid
EP3747798	(KULM-N) KULMIO OY	Packaging sheet comprises a number of units, each unit is a polygonal truncated pyramid consisting of walls, a first end formed by a first polygon having a first largest diameter and a second end formed by a second polygon
WO2020247319	(ALUM) CLOSURE SYSTEMS INT INC	Method for forming cut in polymeric component using mandrel, involves providing blade assembly, and cutting polymeric component through blade which extends into conformal support ring after blade has penetrated through polymeric component
KR20200132811	(UYKR) UNIV KOREA RES & BUSINESS FOUND	Antibacterial multilayer film includes a coating layer containing octagonal fennel ( <i>Illicium verum</i> ) oil, <i>Staphylococcus aureus</i> or <i>Penicillium lock</i> , and further comprises an antibacterial coating layer
WO2020254677	(BERR-N) BERRY SUPERFOS RANDERS AS	Injection moulded container for food products used in plastic packaging industry, has specific injection moulded portion that is arranged outside inner functional barrier and comprises recycled plastic material
WO2020251035	(NASB) NISSEI ASB MACHINE CO LTD	Preform of bottle-shape resin-made container, has two-layer structure in which housing portion and bottom portion are composed of inner layer formed of virgin material and outer layer formed of recycled material

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2020361185	(MUCE-N) MUCELL EXTRUSION LLC (FRED-I) FREDRICKSON E V (LIND-I) LINDENFELZER M E (SANI-I) SANIEI M	Coextruded multilayer thermoplastic film used for packaging oxygen-sensitive products, comprises foam layer comprising cells and solid layers comprising high density polyethylene, and has preset overall thickness and bending stiffness value
WO2020227256	(HONE) HONEYWELL INT INC	Flexible package comprises chemical and moisture resistant layer formed from poly(chlorotrifluoroethylene-co-vinylidene fluoride), and a substance to be delivered and is applied to or enclosed by the chemical and moisture resistant layer
EP3736122	(PROC) PROCTER & GAMBLE CO	Container used for packaging for pourable consumer products, comprises container wall comprising outer layer and adjacent underlying layer comprising colorant visible through outer layer, end seam, and longitudinal overlapping seam
WO2020231781	(EACH) EASTMAN CHEM CO	Recyclable, extrusion blow-molded article used as e.g. container, packaging article, cosmetic jar and bottle, comprises recycled polyethylene terephthalate (Rpet)/copolyester blend having rPET and copolyester, and chain extending agent

## Construcción

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2020240060	(ABNP-N) ABN PIPE SYSTEMS SLU	Joining flange for piping element, has annular element that emerges from second end of tubular main portion, which in turn comprises multiple through holes, and integral portion which comprises inside reinforcing fibers
US2021079675	(GOOD-I) GOODWIN K	Flexible pool fountain system has modular conduit assembly which allows for reduction of physical profile, both above and below pools waterline and inline sliding T-valve for maintaining pools water circulation jets below waterline
US2021063096	(BIOT-N) BIOTHERM HYDRONIC INC	Flexible mat with fluid conduit, has fluid conduits that arranged in parallel to each other and adjacent to base layer, where strips of tape are arranged in parallel to each other and orthogonal to fluid conduits, and welded to base layer
US2014259965	(AQUA-N) AQUADATION TECHNOLOGIES LLC (HAKI-I) HAKIM O B (MARA-I) MARAWI B	System comprises moisture stabilization material to be applied to building foundation site that changes properties of soil to enhance or diminish soil's ability to retain and/or transport moisture

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3764737	(GAMM-N) GAMMASWISS SA	Anti-icing heating cable device for mounting man-made structure, has electrical heating cable which includes conducting wire surrounded by insulator, and tubular metal pipe provided with inner cavity within which heating cable is mounted
NL2023088	(HAJE-N) HAJEE BV	Floor heating system has mat that is provided on top side of fastening unit arranged in advance for fixing heating pipe in desired position on mat, where mat is designed such that pourable material moves between meshes
BR202019021083	(DFRE-I) DE FREITAS S J B	Structural element for hydraulic installation, is coupled to pipe segments attached to slabs in pre-established positions in project, and expanded-polystyrene structure with dimensions defined by project proportional to dimensions of shaft
KR20200127070	(UYEU) UNIV DONG EUI IND ACAD COOP FOUND	Pipe jointing device for polyethylene water supply, has socket portion formed with hollow portion, and cap part coupled to outer surfaces of both ends of socket part and surrounded at metal ring part and metal ring holder part
KR102177186	(TAED-N) TAEDAM CO LTD	Polyurea resin coating waterproofing material produced by mixing first material comprising prepolymer and second material comprising curing agent useful for constructing thermal insulation functional waterproof structure
AU2020103969	(JINA-N) JINAN QINGHUI AGRIC SERVICE CO LTD	Thermal insulation block for buildings comprises diatomite, fly ash, rice hull powder, Portland cement, expanded vermiculite, expanded polystyrene particles, mullite, perlite, carboxymethyl cellulose and brown seaweed
US2021017757	(EIZM-I) EIZMAN G	Method for insulating a gap within a building, involves providing a block comprising polystyrene foam, a solvent is poured onto the block, identifying gap within building and applying block to gap while the block is in malleable condition
WO2020255031	(SAES) SAES GETTERS SPA	Vacuum insulating glazing used in window or facade and cabinet for domestic or commercial refrigerators, comprises two glass panes, non-evaporable getter system and polymer-based sealing edge comprising e.g. aromatic diamine curing agent
WO2021046280	(BADI) BASF SE (IYER-I) IYER S G	Aqueous coating composition used for forming sprayed film and barrier coating e.g. roof coating, architectural coating and industrial coating, comprises coating components comprising polymer, filler and phosphoric acid catalyst

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021041418	(PETF) BOSTIK INC	Roofing underlayment used for roof deck, comprises roofing membrane and pressure-sensitive adhesive comprising butyl rubber or polyisobutylene, liquid plasticizer and tackifier on membrane and having preset glass transition temperature
US2012328841	(FIBE-N) FIBERWEB INC (FIBE-N) FIBERWEB LLC (AFSH-I) AFSHARI M	Article, useful in construction material (housewrap), comprises nonwoven substrate, film comprising e.g. polymer e.g. polyethylene, and another polymer e.g. poly(olefin-co-acrylate-co-maleic anhydride) e.g. capable of absorbing moisture
EP3751072	(KASC-N) KASCHIER & LAMINIER GMBH K L	Water-repellent flat material used for sealing roof structure, comprises at least one water-impermeable layer, and at least one water-absorbing layer which is arranged as emergency seal and comprising water-absorbent plastic
BR202019008446	(DOLI-I) DE OLIVEIRA E C	Plastic roofing for use with photovoltaic plate to provide energy for large companies and homes, comprises a polymeric plastic developed with antioxidant based on sustainable support connected to a polymerized plastic tile
US2020354282	(OWEN) OWENS-CORNING INTELLECTUAL CAPITAL LLC	Roofing membrane e.g. roofing underlayment, comprises substrate at least partially impregnated with asphalt coating composition which is free of oxidized asphalt and liquid parting agent emulsion containing thermoplastic polymers
EP3783180	(PROF-N) PROFINE GMBH	Reinforcement profile for a plastic window profile used for the production of windows and doors, includes reinforcement chamber that is equipped with compressible sealing profile, and sealing profile is connected to reinforcing profile
WO2021024111	(GRAF-N) GRAF SYNERGY SRL	Profiled element for doors/windows made of plastic material, has retaining portion frees which is superiorly holding surface for positioning of central panel and retaining configuration, and retaining portion faces holding surface
US2020173229	(UYKI-N) UNIV KING ABDULAZIZ	Self-powered dynamic photovoltaic sunshade system for shading outside of window surfaces on a building facade, comprises a sunshade having a flat surface constructed of plastic polymer fabric, and a first rod has a left end and a right end
EP2957691	(CHAM-N) CHAMPION LINK INT CORP (CHIN-N) CHINAFLOORS HOLDING LTD (BAER-I) BAERT T L M (DREV-I) DREVET A (VPOY-I) VAN POYER T	Panel suitable for assembling waterproof floor or wall covering, has central layer composed of thermoplastic material, rigid top and rigid bottom layers, where panel is rigid and preferably has specific thickness or smaller

# Automoción

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020100318	(NSUM) AUDI AG	Solar cell unit for motor vehicle component e.g. component forming portion, has coil arrangement that is embedded within insulation layer completely or partially flush with surface to underside of insulation layer
EP3782832	(MOTH-N) MOTHERSON INNOVATIONS CO LTD	Trim component for cladding interior space of element of passenger transport, has carbon fibers that are embedded into plastic or polymer, and anode and cathode are welded onto base housing or embedded into plastic or polymer
EP3769927	(WBAI) WEBASTO SE	Vehicle roof for protecting vehicle interior, has guide rail with guide track formed by profile which is insert of injection-molded plastic portion or rail body, and which is overmolded with injection-molded plastic portion
DE102019004940	(DAIM) DAIMLER AG	Device for generating a haptic feedback on a surface, which is used as a control element with touch-sensitive functional areas, comprises component and transmission structure, multiple of webs are decoupled from the component by a gap
WO2020235434	(ASAG) AGC INC	Heat-insulating material used for ceiling material of vehicle, is prepared by molding core material containing inorganic powder to form core material molded component, obtaining vacuum heat-insulating material, and integrally laminating
KR102216918	(HYOL-N) HYOLIM IND CO LTD	Carbon fiber reinforced plastic driving shaft for vehicle, has shaft tube with first carbon fiber, and second carbon fiber sheet formed by carbon fiber sheet from outer surface of first carbon fiber sheet along axis of shaft mold form
EP3766751	(ILLT) ILLINOIS TOOL WORKS INC	Tank e.g. brake tank for vehicle, has frame that comprises bladder defining internal fluid cavity, protruding neck that defines fluid port in communication with cavity, and reinforcing plastic patch that is integrated into molded material
WO2020261835	(HATS) NHK SPRING CO LTD	Suspension system e.g. leaf-spring-type suspension system mounted in vehicle, has first and left arms that are provided to support leaf spring by one portion different from one end or other end of leaf spring extended in strip shape
EP3753721	(SPEC-N) SPECTRO PLAST OY	Plate e.g. end plate of tank, has profile that is adapted adjacently and joined together by welding, flanks of profile are against adjacent profile where cross section of profile is triangle and two flank of triangle forms flanks of profile

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2020252124	(CTST-N) CONTINENTAL STRUCTURAL PLASTICS INC	Vehicle component construct used in e.g. automotive industry, comprises frame formed of composite sandwich panel material comprising open area core, high gloss surface sheet, and structural skin adhered to face of core by adhesive layer
JP2020189409	(NSMO) NISSAN MOTOR CO LTD (RENA) RENAULT SAS	Press-molded fiber reinforced plastic panel for use in e.g. bonnet of motor vehicle, has patch which is made from fiber reinforced plastic, located in curved area, and interposed in between fiber reinforced plastic layers
DE102019206828	(VOLS) VOLKSWAGEN AG	Headrest for vehicle seat, has cushion carrier having head impact area that is arranged on horizontally and vertically extending front side and closed wave profile that is provided with vertically and horizontally extending wave crests
DE102019215781	(VOLS) VOLKSWAGEN AG	Interior trim unit for motor vehicle, such as passenger car, is partially formed from fiber-reinforced plastic, where fiber-reinforced plastic is provided with short and continuous fibers, which are embedded in plastic matrix or rovings
WO2020249562	(SMRC-N) SMRC AUTOMOTIVE HOLDINGS NETHERLANDS BV	Vehicle interior part obtained by injection of single layer of polymer into mold i.e. single layer, useful in vehicle including motor vehicle

## Otros

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3787106	(PCTE-N) PC TEL INC	Antenna device e.g. over-molded thin film antenna device, has outer layer that is molded between shutoff surface of core mandrel and over thin film radio frequency (RF) element, and RF connector electrically coupled to thin film RF element
WO2021023555	(QINE) QINETIQ LTD	Multilayered article or product e.g. Luneburg lens, comprises at least two layers in which at least one layer is made of polymer composition comprising polymer e.g. high-density polyethylene, and filler material comprising titanium dioxide
WO2020241671	(MITN) MITSUBISHI GAS CHEM CO INC	Film for transparent conductive film used for e.g. touch sensor, is formed using composition comprising polyarylate and aromatic polycarbonate, each having specific weight average molecular weight

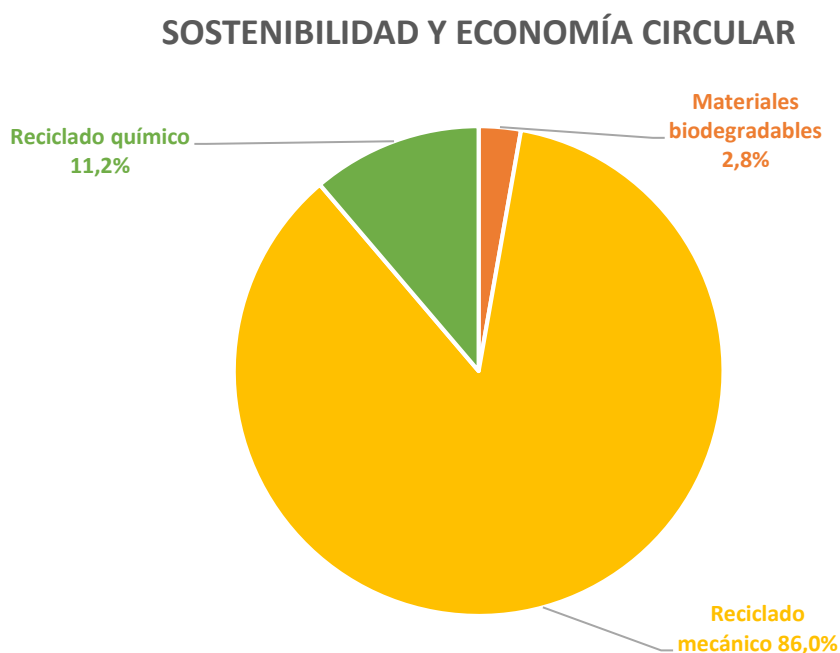


Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019112089	(BRKM) BRUECKNER MASCHBAU GMBH & CO KG	Biaxially oriented film for battery, comprises layer(s) containing polyethylene(s) of preset weight average molecular weight, and layer(s) containing high molecular weight polyethylene(s) having polyethylene(s), and has preset porosity
WO2021033413	(TORA) TORAY IND INC	Polyolefin microporous membrane used for wound body for separator for ion secondary battery
WO2020251909	(GORE) GORE & ASSOC INC W L	Expanded PTFE membrane used for article for filtration of filterable matrix, has preset matrix tensile strength, and crystallinity index
WO2021004956	TECNOSENS S R L	New polymer matrix electrodes

VOLVER A  
CONTENIDO

# SOSTENIBILIDAD Y ECONOMÍA CIRCULAR

En el siguiente gráfico se muestra la distribución de las 1.585 familias de documentos de patente recuperadas en este trimestre en el apartado de Sostenibilidad y economía circular. Como se observa la gran mayoría se refieren al reciclado mecánico.



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
WO2021039571	(TORA) TORAY IND INC	Fiber structure used for filter and substrate for cell scaffold material, comprises fibers of biodegradable polymer, and includes at least two peaks in molecular weight distribution obtained by gel permeation chromatography measurement
DE202020107372	(HOPE-N) HOPE TREE HOLDING GMBH	Granules used as sole starting material, comprise natural, pure plant-based components comprising solid composition containing vegetable starch, thickening and/or gelling agent and optional additives and having preset residual moisture

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3783067	(LAPP-N) LAPP ENG & CO	Polymer material used for preparing coffee capsule, comprises biodegradable base polymer and barrier material and has preset quotient of oxygen permeability of base polymer to oxygen permeability of polymer material
WO2021010054	(KANF) KANEKA CORP	Manufacture of injection molded component for e.g. tableware, involves heating and melting molded material at preset temperature between melting point peak temperature and melting point peak end temperature, and injecting molding material
WO2021010327	(KANF) KANEKA CORP	Producing melt-processing composition comprising poly(3-hydroxybutyrate)-based resin by heating material comprising poly(3-hydroxybutyrate)-based resin, extruding material, and obtaining melt-processing composition
WO2021005205	(CARB-N) CARBIOLICE	Composition used for forming plastic film, comprises polylactic acid, polyester containing polybutylene adipate terephthalate and polybutylene succinate adipate, poly(propylene glycol)diglycidyl ether, and plasticizer
DE102019117688	(ARBH) ARBURG GMBH & CO KG	Product useful as a support material in molding process, comprises butenediol vinyl alcohol copolymer, polyvinyl alcohol polymer and poly vinyl pyrrolidone
KR20200145508	(CHUN-I) CHUNG Y S	Manufacture of fishing net involves using biodegradable plastic buoy to play floating role when installed in sea, forming rope using biodegradable resin composition in different shapes and forming net with preset mesh size comprising stone
WO2020262509	(SEKI-N) SEKISUI KASEI CO LTD	Biodegradable resin particles used in external preparation such as skin care cosmetic, cleaning cosmetic and sunscreen cosmetic, are made of polyhydroxyalkanoates
WO2020262575	(KAOS) KAO CORP	Fibers used for nonwoven fabric, have preset average fiber diameter, and comprise biodegradable polyester having preset weight average molecular weights and melt viscosity
WO2020262619	(KANF) KANEKA CORP	Molded article used in e.g. agriculture, comprises laminated material containing vapor deposited layer comprising inorganic material provided on surface(s) of resin layer containing poly(3-hydroxyalkanoate) and having preset surface tension
WO2020256090	(OKUR) OKURA IND CO LTD	Resin composition used in heat-shrinkable film for shrink wrapping, comprises polylactic acid, polybutylene succinate and polybutylene succinate adipate

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2020251745	(NATU-N) NATUREWORKS LLC	Poly lactide resin composition used to treat subterranean formation, in certain oil and gas well treatment applications, and as diverter in formation, comprises melt- or solution-blend of polymer or copolymer of meso-lactide and polylactide
WO2020235241	(KANF) KANEKA CORP	Resin composition used for forming injection molded article e.g. tableware, comprises inorganic filler and resin component comprising polylactic acid and poly (3-hydroxyalkanoate) type-resin having preset weight average molecular weight
KR102178306	(ULTR-N) ULTRA V CO LTD	Producing organic-inorganic composite fine particles used in filler, comprises e.g. providing first composition by stirring solution containing organic solvent and biodegradable polymer, and providing second composition comprising water

## Reciclado Mecánico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3785873	(LOGO-N) LOGOPLASTE CONSULTORES TECNICOS SA	Recycling of thermoplastic polymer used for preform, involves shredding pre-treated polymer material to form polymer flakes, compacting flakes using disk agglomerator, partially crystallizing pellets, and processing polymer material
US2013092609	(ANDE-N) ANDERSEN TRUST DEAN	Method for enhanced separation of e.g. magnetic fuzz, from automobile shredder residue, involves air sorting residue in air-locked automobile shredder residue sorting system, and collecting sorted collection of residue
WO2021038838	(KAOS) KAO CORP	Recycling method of container, involves forming regenerated resin and forming portion of sheet material using regenerated resin formed in regenerated resin formation process in seat material formation process
EP3785578	(GORT-I) GORT-BARTEN A C (GORT-I) GORT-BARTEN L A	Device for separating infusion capsule, has base unit having face whose portion surrounding aperture having surface that undulates in longitudinal direction, and plunger with projection sized to fit within aperture
US2021046511	(SPEC-I) SPECTOR S	Sorting combination for separating waste materials has ferromagnetic item which is attached to non-ferromagnetic apparatus to enable magnet to attract non-ferromagnetic apparatus

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
ES2796956	(ASIN-N) ASOC INVESTIGACION MATERIALES PLASTICOS	Process for carrying out removing paint from painted plastic parts for automobile or household appliance during recycling, involves introducing thermoplastic material coated with paint in first extruder and locating filter between extruders
DE102019004847	(Hska) HOSOKAWA ALPINE AG	Crushing device arranged in shredder cutting mill, has crushing stages that are arranged one above each other on shaft and are arranged with respective rotatable rotor having common rotation axis that is oriented vertically
WO2020260972	(FATE-N) FATER SPA	Method for sterilizing and decontaminating post-consumer absorbent sanitary products polluted with organic compounds derived from human metabolism comprising drug residues, involves decontaminating post-consumer absorbent sanitary products
WO2020228925	(REBO-N) REBORN PLASTICS NV	Method of recycling waste material e.g. agricultural film, involves mechanically treating ground material by hammer mill, generating sheet material fraction and polymer fraction, extruding polymer fraction, and filtering melted polymer

## Reciclado Químico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021070959	(BASE) BASSELL POLIOLEFINE ITAL SRL	Depolymerizing polyolefins by adding polyolefin-based feed stream and metal oxide to reactor heated to predetermined temperature and reacting polyolefin-based feed stream with metal oxide to depolymerize polyolefin-based feed stream
DE102020117045	(LEBN) LEIBNIZ-INST POLYMERFORSCHUNG DRESDEN	Devulcanization of sulfur-crosslinked rubber for e.g. tires, involves comminuting sulfur-crosslinked vulcanized rubber with unsaturated double bonds in main polymer, and mixing liquid metal or liquid metal alloy, and separating rubber
WO2021028695	(POSE-N) POSEIDON PLASTICS LTD	Recycling polyethylene terephthalate (PET), used to prepare purified product of bis(2-hydroxyethyl) terephthalate, comprises e.g. depolymerizing PET in presence of ethylene glycol and catalyst system in a series of depolymerization reactors

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3783054	(PROC) PROCTER & GAMBLE CO	Degrading a superabsorbent polymer to poly(acrylic acid) involves flowing a feedstream which includes superabsorbent polymer into a UV irradiation zone, irradiating the feed stream with UV, and producing a product stream
EP3783055	(PROC) PROCTER & GAMBLE CO	Degrading crosslinked and poly(acrylic acid)-based superabsorbent polymer (SAP) into soluble polyacrylic acid polymers, involves mixing SAP with oxidative water-soluble salt comprising cation and anion, and aqueous carrier, and heating
WO2021032821	(IONI-N) IONIQ A TECHNOLOGIES BV	Depolymerization of terephthalate polymer into reusable raw material for preparing fresh terephthalate polymer, involves e.g. using ethylene glycol into depolymerized mixture comprising monomer and dimer, and removing solid compounds
EP3783056	(PROC) PROCTER & GAMBLE CO	Degrading superabsorbent polymer to poly(acrylic acid) comprises placing feed into reactor, irradiating the feed with microwave at temperature and producing product comprising the poly(acrylic acid) at carbon yield
WO2021021855	(EACH) EASTMAN CHEM CO	Preparation of recycle polyester used for article e.g. totes, involves obtaining recycled propylene composition derived from cracking of recycle content pyrolysis oil composition, and producing polyester reactant(s) using recycled propylene
EP3778744	(UABN-N) UAB NEO GROUP	Recycling post-consumer polyethylene terephthalate for polymeric polyethylene terephthalate material, involves combining a post-consumer polyethylene terephthalate material with ethylene glycol, heating, purifying, and re-polymerizing
WO2021023889	(RECT) RECTICEL SA	Alcoholization and hydrolysis of polyurethane material used for e.g. sealant, during preparation, involves reacting polyurethane material with alcoholization compound having preset melting point, and hydrolyzing separated lower phase
WO2021021902	(EACH) EASTMAN CHEM CO	Preparation of recycle polyester involves obtaining recycled propylene composition by cracking of recycle content pyrolysis oil composition, producing recycle polyester reactant, and reacting with recycle dimethyl terephthalate
WO2021019390	(ESEN-N) ESENTTIA SA	Extracting, quantifying and recovering additives in polypropylene by washing and grinding plastic material, extracting using solvent in packed columns, crystallizing the additives, and quantifying the additives
WO2021005402	(REDA-N) REDANTEA SRL	Solid complex used for recycling of polyamide-based materials, comprises at least one cyclic alkylene carbonate, and at least one polyamide

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2020260774	(FINN-N) FINNFOAM OY	Recycling polystyrene involves forming waste material having rigid polystyrene foam material, dissolving the waste material to solvent e.g. 1,3-dioxolane, in dissolving unit, evaporating the solvent and recovering the recycled polystyrene
EP3763777	(BORA) BOREALIS AG	Treatment of plastic waste chips in manufacture of polyolefin compositions, involves providing plastic waste chips in treatment vessel, washing and drying, preheating, subjecting to fixed bed, and recovering treated plastic waste chips
WO2020260387	(CVST) COVESTRO DEUT AG (CVST) COVESTRO INTELLECTUAL PROPERTY GMBH & CO	Recovery of materials from polyurethane product e.g. foam, involves phase separating polyurethane product mixture to alcohol and solvent phases, and working up solvent phase to obtain polyol, and alcohol phase by hydrolyzing carbamate
EP3757152	(BORA) BOREALIS AG	Providing controlled rheology modified mixed-plastic-polyethylene blend involves e.g. melt compounding mixed-plastic-polyethylene reactant blend with peroxide master batch having polyolefin resin and peroxide in presence of antioxidant
KR20200142381	(KRIC) KOREA RES INST CHEM TECHNOLOGY	Depolymerization of ester functional group-containing polymer for forming monomer, involves contacting mixture containing polymer containing ester functional group with e.g. polar protic solvent, and basic compound containing hydroxyl group
KR102192958	(CHEO-N) CHEON GANG CO LTD	Recycling resource using depolymerization of waste spandex comprises e.g. stirring and heating mixture containing polyether polyol in waste spandex, first recovering methyl ethyl ketone solvent, and lowering temperature
WO2020257234	(SABI) SABIC GLOBAL TECHNOLOGIES BV (MAHO-I) MAHOOD J A	Isolation of bisphenol A e.g. 4,4'-isopropylidenediphenol, involves depolymerizing poly(carbonate), distilling dialkyl carbonate, alcohol, and organic cosolvent, combining dialkyl carbonate mixture with aqueous base, and crystallizing
JP2020203997	(ASAH) ASAHI KASEI CORP	Processing reinforced composite for use in e.g. aircraft, by separating base material and reinforcing agent of reinforced composite using process solution containing oxidizing active species and/or heat, and regenerating reinforced material
JP2020203995	(ASAH) ASAHI KASEI CORP	Regenerating reinforced material for use in transport device e.g. aircraft and automobiles, by separating base material and reinforced material of reinforced composite using process solution and/or heat, and regenerating reinforced material

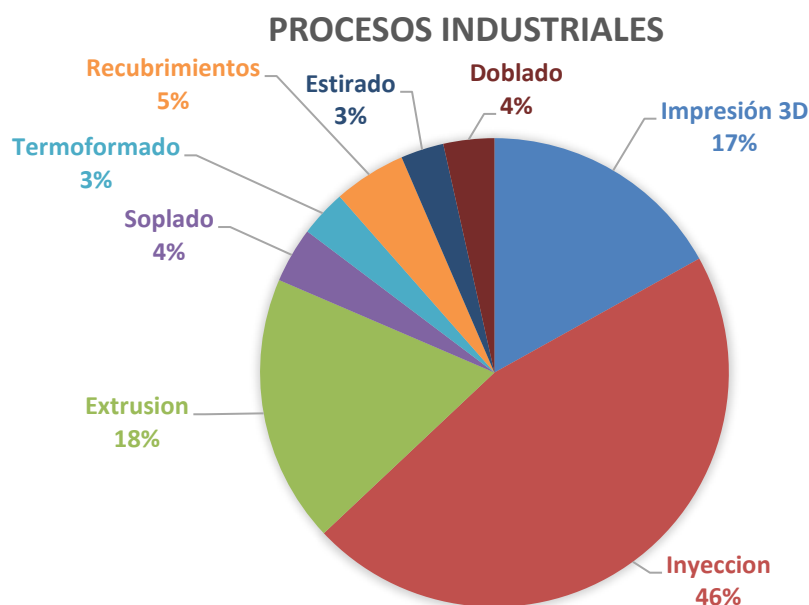
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2020203996	(ASAH) ASAHI KASEI CORP	Regeneration of reinforced composite material used for transport devices, involves separating base material and reinforcing material, regenerating reinforcing material by washing, processing, and regenerating reinforced composite material
US2019084916	(NINE-N) 9449710 CANADA INC	Transformation of polyester comprising polyethylene terephthalate and poly(ethylene glycol-co-1,4-cyclohexanedimethanol terephthalate) into terephthalate, involves mixing polyester with mixture of solvent, alcoholic solvent and alkoxide
WO2020257237	(SABI) SABIC GLOBAL TECHNOLOGIES BV (MAHO-I) MAHOOD J A	Depolymerizing poly(carbonate) comprises combining poly(carbonate) comprising repeating units derived from bisphenol A, bisphenol A, water and base under conditions to form single liquid phase and to depolymerize the poly(carbonate)

VOLVER A  
CONTENIDO



# NUEVOS PROCESOS INDUSTRIALES

En el siguiente gráfico se muestra la distribución de las 15.460 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos procesos industriales. Como se observa casi la mitad de ellos se refieren a los procesos de inyección.



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
WO2021043873	(BADI) BASF SE	Method of designing molding process for manufacturing component, involves interpreting analysis result by subjecting to target specification, and outputting interpretation result describing quality of molding process and portion design

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020209815	(FAUR-N) FAURECIA CHINA INVESTMENT CO LTD	Lightweight hot press molding tool for composite sheet of decorative element, comprises press including first unit and second unit that can be opened and closed and hot pressing station is delimited between first unit and second unit
FR3099078	(FAUR) FAURECIA INTERIOR IND	Molding assembly for use in generating an electrical potential difference from a temperature difference comprises a mold component having a molding surface, a metal foil and an electromagnet
WO2021014100	(AQOR) ARKEMA FRANCE	Method for manufacturing a portion made of composite material, involves providing installation in a die mounted on a press of a closed thin-walled mold in which reinforcing fibers have been placed, and closing the press
WO2021013958	(BADI) BASF SE	Method for simulating filling process of mold cavity in injection molding process using plastic material, involves determining cell coordinate system for each cell, and determining flow direction of mold flow for each cell
DE102019210210	(TEVE) CONTINENTAL TEVES & CO OHG AG	Injection molding tool for producing warning device for monitoring container fill level, has fill level detection unit, and electronic signal processing unit, first mold component produces interface section of the housing
WO2021001210	(BADI) BASF SE	Method for protruding shaped article used in vehicle door intrusion beam, involves injection molding second element onto first element to obtain shaped article where second element comprises outer surface with third surface features
WO2020245287	(AQOR) ARKEMA FRANCE	Producing metal-polymer composites for e.g., computers, by treating surface of metal component with solution of triazine thiol derivative and contacting treated surface with polymer composition having long chain semi-crystalline polyamide
WO2021043683	(LNXS) LANXESS DEUT GMBH	Method for producing a composite component, involves providing an injection molding tool with an openable cavity and a tool size in the closing direction and a tool size at right angles to the closing direction of the tool
WO2021034793	(SYNV-N) SYNVENTIVE MOLDING SOLUTIONS INC	Injection molding apparatus with integrated actuator electronic drive, has electrical drive which comprises interface that receives and controllably distributes electrical energy or power in controllably varied amounts
WO2021018845	(LNXS) LANXESS DEUT GMBH	Injection-molded component for vehicle interiors, is synthesized by reacting butanediol with terephthalic acid or dimethyl terephthalate in twin screw extruder, and injection molding

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3778168	(UKAS) UNIV KASSEL	Shape-flexible insert inserted into tool half of e.g. casting tool, has adjustment elements individually adjustable in length and inclination relative to normal direction and whose lower end regions are arranged on upper side of base
WO2021014715	(UBEI) UBE KOSAN KIKAI KK (UBEI) UBE MACHINERY CORP LTD	Control device of injection molding machine, sets molding conditions by associating mold clamping force in second display column with screw positions in first display column as clamping forces generated when screw reaches screw positions
WO2021007677	(ABCT-N) ABC TECHNOLOGIES INC	Molding system used for molding thermoplastic article, has mold halves that are closed to second closed position during second molding stage to engage and bond together multiple article components into finished thermoplastic article
EP3766654	(MLDM) MOLD-MASTERS 2007 LTD	Injection molding apparatus has communication box that is attached to hot runner, forms fieldbus with temperature controller through wireless communication link, and has communication card connecting thermocouples to fieldbus
EP3763505	(OTRA-N) OTRAJET INC	Injection-molding system for making foamed polymeric article, has molding devices that receive mixture from outlet and include hollow space and feeding port that is communicable with hollow space and is engageable with outlet
DE102019128754	(FREU) FREUDENBERG KG CARL	Injection molding nozzle for injection molding tool for producing components, has drive device which is provided to control axial adjusting movement of nozzle needle that is designed to be rotatable about longitudinal axis
CN212219046	(OTRA-N) OTRAJET INC	Molding device has first valve is placed at first gas conduit and configured to control gas injection from gas source through first gas conduit to mold cavity and pressure sensing unit senses pressure within mold cavity
WO2020261457	(NPDE) SHIMIZU IND CO LTD (SHIM-N) SHIMIZU KOGYO KK	Injection molding apparatus has main portion comprising resin path with exit for pouring resin into cavity, and nozzle which is attached to main-portion unit of hot runner apparatus so that movement to radial direction of nozzle is possible
WO2020261457	(NPDE) SHIMIZU IND CO LTD (SHIM-N) SHIMIZU KOGYO KK	Injection molding apparatus has main portion comprising resin path with exit for pouring resin into cavity, and nozzle which is attached to main-portion unit of hot runner apparatus so that movement to radial direction of nozzle is possible
US2020406521	(PROC) IMFLUX INC	Method for controlling melt flow front pressure in co-injection molding apparatus, involves adjusting second injection pressure based on comparing second flow front pressure to second optimal flow front pressure

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3754447	(ENGA) ENGEL AUSTRIA GMBH	Device for monitoring molding machine working in molding cycles and production plant, has memory unit that is in data connection with computing unit or is brought into connection with respect to process variable set
WO2020249641	(STOK-I) STOKY A	Machine for injecting thermoplastic material into mold, has frame, and console that mounts on frame, melting chamber supports by console, piston designs to immerse in melting chamber along injection axis through upper opening
WO2020251022	(BAND) BANDO CHEM IND LTD	In-mold label stuck on side surface of resin container e.g. bucket, has main portion which form predetermined interior angle by corner-cut portion, and all of angles are configured as rounded surfaces having predetermined radius
US2020396840	(SRGG-N) SRG GLOBAL LIRIA SL	In-mold electronic (IME) device used in vehicle interior and exterior components, has decorative layer which is applied to light channel layer or opposing second surface of substrate and defines opaque portion and translucent portion
WO2020239873	(RELE-N) REL8 APS	Insert device for moulding tool, has mount resistor that provides temperature controlling elements capable of heating localized region of encoding area, and surface mount resistor that is arranged on printed circuit board layers
US2020376729	(MICT) MICROSOFT TECHNOLOGY LICENSING LLC	Molding of thermoplastic structure for near-eye-display device, involves drying polyolefin primer solution to form primer layer directly contacted with fiber-reinforced polymer to form housing shell, and injecting thermoplastic material
US2020376732	(LIMW-N) LIMWORKS LLC	Injection system for integration into an injection molding machine, includes an injection module removably mounted in an injection module receiver, and the injection module has a nozzle providing a flow path to introduce material
HU1900182	(GUDL-I) GUDLIN Z	Injection molded portion with plastic base layer comprises translucent cover layer, decorative layer arranged between the base layer and cover layer and has decorative elements, decorative elements are partially embedded both in base layer
WO2020235575	(KANF) KANEKA CORP	Thermoplastic resin molding e.g. injection foam molding used for domestic electrical appliance, has stiffening rib whose tip portion comprises curvature radius at both corner portions, or circular arc shape
WO2020233861	(FOBO-N) FOBOHA GERMANY GMBH	Injection mold for moldings in form of crates, has first and second mold half which comprises slide that is arranged movable with respect to mold plate of respective mold half and linear drive which is arranged partially inside slide

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2020191245	(BORS) BOURNS KK	Insert molding method for use in method for manufacturing breaker mounted in electric equipment, involves filling and curing resin material in molding space closed by first mold and second mold to mold resin case respectively
US2020368951	(PROC) IMFLUX INC	Additive injection device for injection molding system used to inject additive materials, such as fluids or powders, has common manifold connected to each of additive tanks and additive injectors, additive pumps pumped additive fluid

## Extrusión

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3785897	(SABI) SABIC GLOBAL TECHNOLOGIES BV	Multilayer film useful in article and electronic device, comprises many layers comprising polymer A layer contains copolymer of polycarbonate and iso- and terephthalate esters of resorcinol, and interdiffusion region
EP3778239	(FRAU) FRAUNHOFER APPL RES PROMOTION ASSOC (FRAU) FRAUNHOFER GES FOERDERUNG ANGEWANDTEN EV	Device for parallel extrusion of print medium onto substrate, for production of parallel conductor tracks, in which electrical potential difference and associated electrostatic field are generated between two electrode elements
WO2021030695	(ENTE-N) ENTEK MFG LLC	Additively manufactured extruder screw component has structural support frame that is provided to define impervious screw surface and axial aperture, and impervious screw surface that is configured to contact extrudable material
WO2021023389	(AIMT-N) AIM3D GMBH	Method for extrusion of fiber-reinforced plastic material for additive manufacturing of component, involves making heating zone available for plastic material and limiting speed of screw conveyor to maximum of revolution per minute
WO2021021083	(GENE) GENERAL ELECTRIC CO	Modular extrusion system for forming an article use in a print head module of a printer head, comprises a support frame, and multiple heaters surrounding the barrel is used for melting polymer pellets into a polymer resin formulation
WO2021019182	(MICL) CIE GEN ETAB MICHELIN & CIE	Prefilter for use in coextrusion processes used in producing complex profiles, such as treads intended for the manufacture of tires, includes coextruded profile, in which a first path is provided for conveying first elastomeric mixture

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3769930	(BGPL-N) BG PLAST IMPIANTI SRL	Method for producing panels in thermoplastic material, involves coupling flat strip covering element to flat strip covering element obtained by third extrusion assembly in gap between second cylinder and third cylinder
WO2021004898	(INTE-N) IND TERMOPLASTICA PAVESE SPA	Plant for blowing extrusion, or cast extrusion, of multilayer film, has melting system that is in place of single-screw extruder, and provides gear pump which is placed in section of fluid circuit between tank melter and extrusion head
WO2020263634	(CORG) CORNING INC	Method for modifying extrusion die using optical dimensioning, involves analyzing image data that is derived from images to form dimensional data, and altering extrusion die to change dimensional attribute of pin using tool
WO2020262480	(PLAG-N) PLA GIKEN CO LTD	Manufacturing apparatus of flexible tube, has control device that is set for controlling two valves to switch, during extrusion molding of flexible tube, from state in which one extruder is in communication with kneading mechanism
WO2020255069	(ROBO-N) ROBOZE SPA	Extrusion system for quick prototyping with thread of filler material, comprises extruder that includes a small tube which acts as conveyor for the thread of filler material and is preferably made of alumina or other ceramic material
DE102019116007	(BATW BATTENFELD-CINCINNATI GERMANY GMBH	Device for producing plastic web e.g. plastic film, has smoothing unit that is provided with rollers whose surfaces are acted upon with contour to produce plastic web with different thickness profiles, where contour is provided with steps
WO2020244737	(KDES-N) K DESIGN GMBH	Device for guiding film tube emerging from film blow head and withdrawn in production direction, has first adjustment unit that is comprised of adjusting mechanism by which coupling rod of first adjustment unit is articulated to frame
WO2020242789	(DOWC) DOW GLOBAL TECHNOLOGIES LLC	Method for extruding melt of linear low-density polyethylene (LLDPE) to form LLDPE extrudate without surface melt fracture, involves heating melt of polyethylene to predetermined temperature and extruding melt through die
WO2020236474	(CORG) CORNING INC	Honeycomb extrusion die used for extruding honeycomb structure, has surface indentation features that extend into side surfaces of pins defining primary slots and spaced from primary slot outlets when slots are devoid
WO2020232376	(EVER-N) EVERIX INC	Extrusion device has controller circuitry that is configured to send motion commands to translation stage to position preform assembly platform such that current film generated by extrusion die is layered on top of previous film

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3736307	(BOEI) BOEING CO	Controlling a particle size distribution of a filler in an extrudable composition involves introducing an extrudable composition comprising a polymer matrix material and a filler into an extruder and extruding the extrudable composition
WO2020226556	(RELI-N) RELIEFED AB	Extrusion and pultrusion device for forming profile product, has two channel portion side walls between rotating die and counter-bearing, where width of channel section is less than distance between opposite side walls of die
DE102019111460	(KUHN-N) KUHNE ANLAGENBAU GMBH	Production of multilayer composite film used for producing casing, involves co-extruding at least three layers comprising thermoplastic resin, polyvinylidene chloride resin and heat-sealable resin, and bi-axially stretching obtained film

## Soplado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
FR3100474	(SIDL) SIDEL PARTICIPATIONS	Method for manufacturing containers by blow molding or stretch blow molding from plastic preforms, involves cooling a base of the mold by circulating a heat transfer fluid, where base of a mold is carried out with a heat transfer fluid
DE102019123796	(KROE) KRONES AG	Device for reshaping plastic preform into plastic container e.g. plastic bottle, has compressed air supply device that is provided with leakage detection device which is intended for detecting leaks in compressed air supply of device
EP3789179	(GEAA) GEA PROCOMAC SPA	Molding apparatus for molding containers starting from parisons made of thermoplastic material, includes a VHP or vaporized hydrogen peroxide generator that sterilizes the parisons, and a heating unit which heats the body
DE102019123795	(KROE) KRONES AG	Device for reshaping plastic preforms into plastic containers, has compressed air supply device which is constructed as modular device, and modular device which is able to be equipped with supply components depending on application
WO2021029131	(YACH) YACHIYO IND CO LTD	Device for manufacturing fuel tank by blow molding using parison, has transfer robots which are provided for transporting built-in components together with jig on which built-in components are placed to lower portion of molding die

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021025127	(NASB) NISSEI ASB MACHINE CO LTD	Die unit for use in blow molding device used for cooling resin-made bottomed shape preform by injection molding using injection molding device, has core metal mold which comprises external shape corresponds to internal shape of preform
DE102019120274	(KROE) KRONES AG	System for manufacturing container, has transport path provided for transporting container from stretch blow molding device to cooling device and coating device, and discharge path provided for discharging coated container
WO2021013264	(JIAN-I) JIANG J	Method for manufacturing a blow-molded panel, involves heating first polymer and a second polymer to have fluidity, the first polymer and the second polymer are extruded to form the first polymer layer and the second polymer layer
CN110281627	(THRE-N) THREE STONE LLC (YIXI-N) YIXIANG BLOW MOLDING FURNITURE NINGBO CO (JIAN-I) JIANG J	Multilayer blow molded board has upper and lower layers each comprise outer and inner layers, and lower layer which is recessed upward to merge inner layer of lower layer and inner layer of upper layer to form supporting contact structure
CN112224606	(HAEU-N) HAEUNCAP CO LTD (SEON-I) SEONG B	Blow molding based lovers container, has combining section formed with protruding section, combining section whose side is formed by molding to integrated with preset thickness, where protruding section is formed on end of concave section
CN112224606	(HAEU-N) HAEUNCAP CO LTD (SEON-I) SEONG B	Blow molding based lovers container, has combining section formed with protruding section, combining section whose side is formed by molding to integrated with preset thickness, where protruding section is formed on end of concave section
WO2021009981	(TOXO) TOYO SEIKAN KAISHA LTD	Manufacturing method of container, involves installing preform in blow molding mold, and forming container provided with coating layer having notch which is formed with blade by blow-molding preform
WO2021004902	(FREP) FRESENIUS KABI DEUT GMBH	Method of making with medical liquid-filled ampoule, involves heating preform by blowing prior to reshaping in such way that it is heated strongly in region of side wall which is reshaped into region of side wall of long side of ampoule
EP3760411	(BITR) BIOTRONIK AG	Production of balloon for balloon catheter, involves providing tubular preform having outer surface containing polymer, contacting outer surface with substance comprising solvent to dissolve polymer on surface, and blow-molding preform
WO2020260341	(SIDL) SIDEL PARTICIPATIONS	Heating unit for a succession of hollow bodies, has any two contiguous emission modules and each emission module has thermal radiation and a zone that has superposition of emission zone that is not capable of emitting thermal radiation



Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2020261096	(DISC-N) DISCMA AG	System for forming and filling container, has mold cavity that defines internal surface, and blow nozzle that transfers liquid at pressure into preform to urge preform to expand toward internal surface of mold cavity and form container
DE102019114953	(SALZ) KHS CORPOPLAST GMBH	Method for producing containers filled with liquid filling material from thermally conditioned preforms, involves assigning each positive displacement pump with two molding and filling stations and supplying with filling material
WO2020240604	(ALPH-N) ALPHAMAC SRL	Manufacturing apparatus for forming hollow containers for storing liquid or semi-liquid food products, has forming punch provided with auxiliary portion that allows thrusting end portion to reach and contact connection zone
WO2020240972	(YOSK) YOSHINO KOGYOSHO CO LTD (YOSK) YOSHINO KOGYOSHO KK	Blow molding apparatus for blow-molding synthetic resin preform in container, has suction element moving unit that moves suction element, so that suction port is located below blow nozzle, after moving blow nozzle from positions
WO2020226921	(AGRI-N) AGR INT INC	System for predicting preventative maintenance for blow molder, has computer system which is comprised of processor programmed to compute preventative maintenance suggestion for container forming apparatus

## Otros

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019122311	(STCS-N) STC SPINNZWIRN GMBH	Production of polylactic acid tape used for e.g. packaging material, involves providing strip-shaped extruded polylactic acid film, heating, cutting into polylactic acid tape, and stretching
JP2021030624	(SNHK) SANOH IND CO LTD (SNHK) SANOH KOGYO KK	Method for manufacturing resin tube with fixing element, involves arranging the resin tubes in metal mold for molding the fixing element, the resin tube is pressurized and cooled from the inside by supplying the fluid into the resin tube
EP3782797	(BOMB-N) BOMBIX3D	Printing device of three-dimensional printer type for additive manufacturing from materials of polymer type in form of fusible granules, which comprises drive mechanism arranged between shaft of motor and shaft of worm

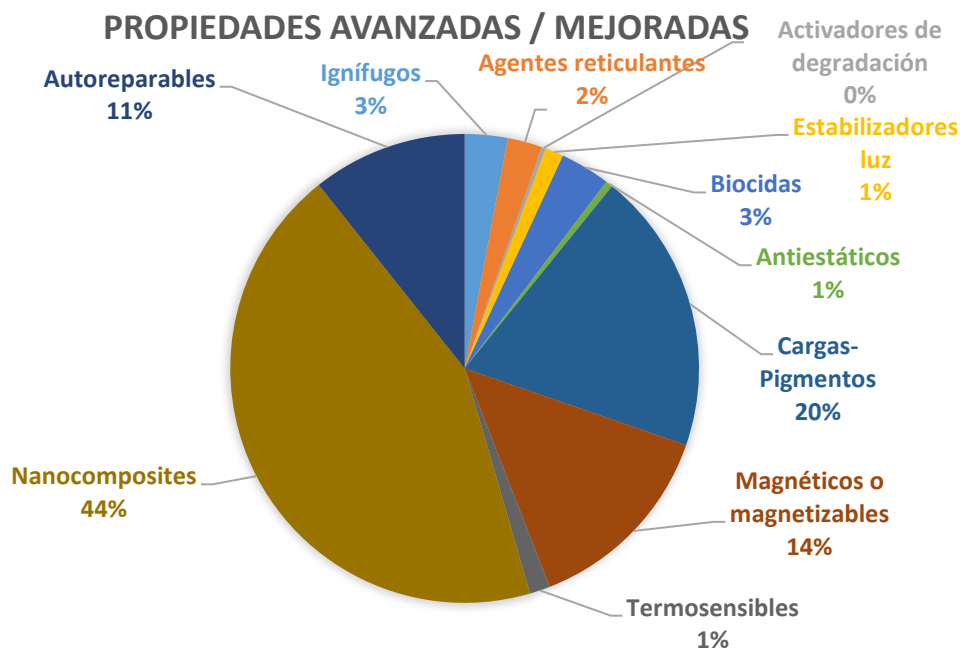
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019127168	(UNIC-N) UNICOR GMBH RAHN PLASTMASCHINEN	Apparatus for producing corrugated plastic pipe from plastic melt hose, has mold jaw that has sensor device comprising sensor with data-capturing sensor head such that detection area has area of molding surface or of receiving space
WO2021028203	(FRAE-N) FRAENKISCHE IND PIPES GMBH & CO KG	Corrugator for production of corrugated pipe, has provisioning device that provides changing device with predetermined shaping jaw in waiting position from multiple shaping jaws arranged outside sequences of shaping jaws
WO2021021425	(SPIR-N) SPIRIT AEROSYSTEMS INC	System for fabricating and curing large aircraft fuselage, has cured material cutting mechanism that cuts large composite portion on tool into trimmed portion segments which are removed from tool without disassembling tool
US2021023801	(BOEI) BOEING CO	Method for manufacturing a cured composite structure having a thermoplastic radius filler, involves inserting radius filler segments into a radius cavity of an uncured composite base component to form an uncured structural assembly
EP3771636	(BOEI) BOEING CO	Method for fabricating composite structural component for aircraft, involves extruding filler material into mold channel of mold channels of die to form filler segments removed from mold channels of die and defining space by radius
DE102019004970	(KIEF-N) KIEFEL GMBH	Thermoforming tool for thermoforming film made of thermoplastic material into molded unit, comprises a molded unit of refrigerator, with an upper tool unit, a lower tool unit and a holding device for holding film between two tool components
US2021001537	(BOEI) BOEING CO	Assembly for debulking uncured stack of plies of fiber reinforced composite material, has heat source that is set between fiber reinforced composite material and forming tool to directionally heat fiber reinforced composite material
WO2020256118	(TOAG) TOA GOSEI KK	Adhesive sheet for vacuum pressure molding for forming decorative film, comprises adhesive layer that is formed using adhesive composition and thin film layer containing surface layer portion, and has preset glass transition temperature
US2020391416	(TRES-N) TREXEL INC (BURN-I) BURNHAM T A (COCK-I) COCKELL B S (KISH-I) KISHBAUGH L A	Performing blowing agent introduction in polymer foam processing involves plasticating polymeric material in an extruder in a plastication period of a first molding cycle, introducing a first dose of blowing agent into polymeric material

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3753711	(MGAT-N) MGA TECHNOLOGIES	Method for compressing a deformable tube, which includes deformation of outer wall of tube along transverse direction, and deformation is carried out progressively along longitudinal axis from central unit of tube
EP3741931	(ALLM) ABB POWER GRIDS SWITZERLAND AG	Method for providing a post for conventional climbing equipment, involves providing an inner member, and providing an outer tubular layer of polymer or plastic around inner member, where the outer tubular layer comprises an outer surface
DE102019207261	(LINR) LINDAUER DORNIER GMBH	Film stretching system for use with clip chains, comprises two clip chains, where each runs through stretching area and return area, which are adjustable by deflecting first control rail and second control rail
WO2020229698	(BADI) BASF POLYURETHANES GMBH	Method for producing mold core with external groove for making composite coil springs, involves assembling master die and shell in master die that encloses shell that particulate matter causes shell to assume negative shape
EP3738754	(BOEI) BOEING CO	Composite manufacturing system for molding composite structure, has bladder that is associated with upper portion of press and configured to reach superplastic state when heated such that bladder forms composite structure
US2020363063	(RAYT) RAYTHEON TECHNOLOGIES CORP (UNAC) UNITED TECHNOLOGIES CORP	Manufacturing component used in gas turbine engine involves forming inner wrap with two walls about mandrel, arranging rod at the walls, forming outer wrap about the inner wrap and the rods to form body and forming features in the walls

VOLVER A  
CONTENIDO

# MATERIALES CON PROPIEDADES AVANZADAS O MEJORADAS

En el siguiente gráfico se muestra la distribución de las 1.416 familias de documentos de patente recuperadas en este trimestre en el apartado de Materiales con propiedades avanzadas o mejoradas. Como se observa más de la mitad se refieren a los nanocomposites.



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.

## Biocidas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021051957	(PROC) PROCTER & GAMBLE CO	Antimicrobial composition, used to e.g. impart residual sanitization and sanitize surface e.g. kitchen surface comprises alkylated polyvinylpyrrolidone polymer and biocidal agent comprising e.g. organic acids, hydrogen peroxide and iodophor
EP3771725	(PLAS-N) PLASTISAC SRL	Plastic material for concentrated composition used for granules used for obtaining an item, comprises essential oil with high terpene content

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021010154	(GCDE) GC CORP	Antibacterial polymer particles used in composition used as dental composite resin, comprise copolymer having units derived from monofunctional antimicrobial monomer and polyfunctional monomer, and have preset water absorption amount
WO2021006178	(SEIT) SUMITOMO SEIKA CHEM CO LTD	Particulate water-absorbent resin composition used for absorber for absorbent article, preferably diaper, comprises microporous inorganic material, silver and/or silver compound, and polymer particles comprising inorganic reducing agent
KR102173676	(POLI-N) POLINS CO LTD	Producing antimicrobial polymer, comprises e.g. stirring mixture of porous silica, and dispersant comprising acrylic copolymer with distilled water using homogenizer to form porous silica dispersion, and forming silver silica nanocomposite
PL431330	(OLIM-N) OLIMAR SP ZOO (SIEC-N) SIEC BADAWCZA LUKASIEWICZ CHEM PRZEMYSLO	Pure or waste polyethylene with aseptic properties and high thermal resistance comprises halloysite containing copper compounds, where polyethylene is characterized by homogeneous dispersion of nanofiller and high adhesion to polymer matrix
WO2020222449	(LOTT) LOTTE CHEM CORP	Thermoplastic resin composition used for forming molded article, comprises rubber-modified aromatic vinyl-based copolymer resin, polyalkyl (meth)acrylate resin, silver-based compound, and zinc oxide containing primary particles

## Resistencia al fuego

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021039013	(SEKI) SEKISUI CHEM CO LTD	Heat-expanding fire retardant used for vehicles and building materials, comprises heat-expanding graphite and matrix resin(s) selected from thermoplastic resins and rubbers, has preset expansion pressure
WO2021029773	(KLIN-N) KLINGELBERG PROD AS	Preparing flame retardant, used in article or product involves providing iron-containing chemical substance, providing chlorine-containing chemical substance, then mixing thus obtaining mixture

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021011932	(HANW) HANWHA AZDEL INC	Reduced discoloration of flame retardant thermoplastic fiber-reinforced porous core for composite articles, involves producing flame retardant thermoplastic fiber-reinforced porous core by using reinforcing fibers and thermoplastic material
WO2021011306	(DOWC) DOW GLOBAL TECHNOLOGIES LLC	Isocyanate-reactive composition used to form polyurethane-based foam comprises isocyanate reactive compound with isocyanate reactive moiety and aromatic moiety and combustion modifier composition with phosphorus and transition metal
EP3763776	(CVST) COVESTRO DEUT AG (CVST) COVESTRO INTELLECTUAL PROPERTY GMBH & CO	Polyol composition useful in reaction mixture to produce polyurethane/polyisocyanurate rigid foams for producing insulation material and/or composite elements, comprises e.g. polyester polyol component
WO2020261011	(MINN) 3M INNOVATIVE PROPERTIES CO	Flame retardant foam used in nonwoven fibrous web used in e.g. thermal insulators in e.g. automotive comprises polyvinyl alcohol foam and fire retardant, having ammonium polyphosphate or sodium metasilicate, coated on polyvinyl alcohol foam
US2020399440	(IBMC) INT BUSINESS MACHINES CORP	Flame-retardant compound used for forming article, comprises moiety derived from biobased dicarboxylic acid, and organophosphorus moiety
JP2020189942	(TEIJ) TEIJIN LTD	Flame-retardant polycarbonate resin composition used for forming molded article, contains polycarbonate-type resin, copolymer containing aromatic alkenyl compound monomer unit, graft copolymer, and drip inhibiting agent

## Autorreparación

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE202019005579	(MOTH-N) MOTHERSON INNOVATIONS CO LTD	Self-healing composition useful for vehicle component, preferably vehicle exterior component, comprises self-healing material and electrically as well as thermally conductive additive within layer
US2021032399	(ATTA-I) ATTARD T	Material used in composite system for self-healing roads, comprises polyurea prepolymer layer, preferably aliphatic polyurea moieties coated on surface of pre-curing or tacky epoxy to form interfacial epoxy-polyurea hybridized-matrix

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3782724	(PAPI-N) PAPIERFABRIK KOEHLER AG AUGUST	Microcapsule used to make microcapsule slurry and as means to separate two components of self-healing coating composition comprises wall comprising aminoplast polymer and which encloses core material comprising hydrophobic material
US2021031470	(UYNC) UNIV NORTH CAROLINA STATE	Self-healing composite used e.g. in automotive industry comprising vehicle components, comprises matrix material comprising thermoset polymer or copolymer, thermoplastic polymer or copolymer having specific and interphase material

## Conductores

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
FR3100250	(CNRS) CENT NAT RECH SCI (UYPA-N) UNIV PAU & PAYS DE L'ADOUR	Electrically conductive nanocomposite particles useful for printing on stretchable support, comprises core comprising e.g. homopolymer of alkyl polyacrylate, shell comprising conductive polymer, and nonionic surfactant
WO2021015580	(UHYG) UNIV HANYANG IND COOP FOUND	Manufacture of heat-dissipating composite material used for electronic device, involves e.g. mixing inorganic binder and filler to prepare mixture, heat-treating obtained mixture, and mixing composite particles and polymer material
WO2021014964	(TATD) TATSUTA ELECTRIC WIRE & CABLE CO LTD	Conductive paint used for manufacturing shielded package, comprises binder component containing epoxy resin, metal particles, block isocyanate curing agent and solvent
US10902974	(CAMB-N) CAMBIOS FILM SOLUTIONS CORP	Transparent conductive film useful for manufacturing a touch panel, comprises a substrate comprising a first surface and a second surface opposing to first surface, and a first silver nanowire layer disposed on first surface of substrate
WO2021001689	(GIUS-N) GIUSEPPE DI MARIA SPA	Coating composition for providing a thermally insulating coating comprises water dispersible polymer, extender comprising calcium carbonate, and hollow glass spheres
WO2020264471	(DESP) PRC-DESOTO INT INC	New addition polymer used for aqueous resinous dispersion, comprises moiety(s) comprising phosphorous acid group, covalently bonded to addition polymer backbone by carbon-carbon bond, and carbamate functional group(s)

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2020401042	(STRD) UNIV LELAND STANFORD JUNIOR	Photo-curable composition for manufacturing film used to form electrode array comprising electrodes, comprises electrically conductive polymer, and crosslinkable additive including saturated moiety and crosslinkable functional groups
WO2020250675	(KYOT-N) KYOTO ELEX CO LTD (KYOT-N) KYOTO EREKKUSU KK	Electroconductive paste composition for forming hardened material, comprises silver powder as electroconductive powder, resin component chosen from thermosetting resin and thermoplastic resin, ester-type compound, and ether/amine compound
TW202106819	KYOTO ELEX CO LTD [JP]	Conductive paste composition
EP3750693	(HERR) LIEBHERR-AEROSPACE TOULOUSE SA	Method for manufacturing an electrically conductive composite material, involves obtaining composite material having thermoplastic matrix and short carbon fibers, and oven is preheated until predetermined target temperature is reached
EP3739120	(EIFF-N) EIFFAGE INFRASTRUCTURES	Conductive roadway, has conductive film, preferably based on modified polyaniline-advantageously protonated/oxidized, using macromonomer dopant, that is interposed between upper and lower layer, with electrical terminals connected to film
US2015348669	(UCNT ) UNIV CONNECTICUT	Fabrication of a composite involves providing phases-separated system of non-mixing solvents, introducing layered material to system, forming emulsion of solvents, adding monomer to polymerize solvent of emulsion to form matrix material
WO2007099137	(ALCH-N) ALCHIMEDICS INC (ALCH-N) ALCHIMEDICS (ALCH-N) ALCHIMER SA (ALCH-N) ALCHIMER (ALSH-N) ALSHI MEDICAL (BURE-I) BUREAU C	Organic film grafting onto electrically conductive or semiconductive surface comprises preparation of solution containing diazonium salt and monomer, and electrolyzing the solution in electrolysis cell

## Cargas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021039555	(SHIE) SHINETSU CHEM CO LTD	Room temperature-hardenable resin composition for forming hardened material, comprises organic polymer comprising molecular chain ends sealed with silanol group and/or hydrolyzable silyl group as main component, and organosilicon compound



Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021034102	(GLDS) LG CHEM LTD	Resin composition used as battery module in battery pack for vehicle, comprises resin component and filler component
WO2020262270	(FUJF) FUJI FILM CORP	Composition used for forming films, comprises particles, film-forming component comprising resin(s) and polymerizable monomer(s), and solvent, and forms film having preset thickness and maximum light transmittance
WO2021002346	(IDEK) IDEMITSU KOSAN CO LTD	Polycarbonate resin composition used for forming resin molded product, comprises copolymer comprising polycarbonate block and polyorganosiloxane block, and having preset viscosity-average molecular weight, and component e.g. antioxidant
WO2020262371	(YAWH) NIPPON STEEL CHEM & MATERIAL CO LTD	Modified vinyl aromatic copolymer used as raw material for modified conjugated diene polymer, comprises structural unit derived from divinylaromatic compound, and terminals which are modified with modifying group containing amino group
WO2020262314	(TOYM ) TOYOBO KK	Polyamide resin composition for foam molding, comprises crystalline polyamide resin, amorphous polyamide resin, inorganic reinforcement material, elastomer, and copolymer
WO2020260638	(AQOR) ARKEMA FRANCE	Composition for preparing impact-modified polymeric composition comprises multistage polymer comprising polymers having different glass transition temperatures, thermoplastic polymer, and component having compound with polymerizable groups
AT16913	(WALT-N) WALTER KUNST GMBH	Composite additive comprises thermoplastic material comprising low linear density polyethylene, and calcium hydroxide, and is obtained by mixing and pelletizing calcium hydroxide with melted thermoplastic material in extruder
WO2020248036	(ROSA-I) RUSCHEL ROSA D	Polymeric composition for preparing elements of the footwear industry in matrices of heels, insoles, adornments, clubs, uppers and soles, comprises rice husk or combination of rice husk and silica, and polymeric material
WO2020241369	(DOWO) DOW TORAY CO LTD	Curable organopolysiloxane composition used for forming cured material, comprises organopolysiloxane comprising at least two radical reactive groups and/or reactive group, one or more types of inorganic fillers, and organosilicon compounds
WO2020235246	(SUMB) SUMITOMO BAKELITE CO LTD	Resin composition used for forming magnetic component, comprises thermosetting resin, magnetic component particles, and non-magnetic component particles having preset specific gravity and particle diameter

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2020369842	(UYFL) UNIV FLORIDA (AGAR-I) AGARWAL A (BOES-I) BOESL B (BUST-I) BUSTILLOS J (IDOW-I) IDOWU A (NAUT-I) NAUTIYAL P	Shape-memory epoxy polymer graphene foam composite (SMEP-GrF) comprises an open cell graphene foam (GrF) surrounded by and infiltrated with a shape-memory epoxy polymer (SMEP) matrix, the GrF being an intra-connected framework
US2020369872	(DANI-N) DANIMER BIOPLASTICS INC	Polymer composition used to molded article, extruded article, polymeric film, foamed article and dispersion, comprises first biodegradable copolymer having monomer residues of 3-hydroxybutyrate, secondary monomer and tertiary monomer

## Nanocompuestos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3789442	(XERO) XEROX CORP	Composition used for three-dimensional printing comprises elastomeric particulates comprising a polyurethane polymer and nanoparticles in which polyurethane polymer defines a core and outer surface of elastomeric particulates
WO2021041493	(XGSC-N) XG SCI INC	Dispersing graphene material in thermoplastic to form a masterbatch for use in e.g., bottles and textiles by loading thermoplastic with specific initial intrinsic viscosity (IV) into extruder or continuous mixer and adjusting IV of mixture
EP3786189	(CNSJ) CONSEJO SUPERIOR INVESTIGACIONES CIENTIF	Obtaining electrochemically active nanoparticulate polymer material used as e.g., electrolyte in redox batteries that use water as solvent by dissolving methylcellulose in deionized water, adding sulfonated lignin and pyrrole, and purifying
WO2021035202	(XGSC-N) XG SCI INC	Graphene-reinforced hybrid polymeric composite comprises graphene filler being two-dimensional flake material, where polymer resins in which graphene filler is intermixed
WO2021025950	(AVER) AVERY DENNISON CORP	Preparing composite comprises adding composition comprising chloroethene monomer, nanocrystalline cellulose and water to a reactor, polymerizing the composition to obtain composite comprising poly(chloroethene) and nanocrystalline cellulose

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021023749	(NIAG-N) NIAGARA BOTTLING LLC	Preparing graphene reinforced PET utilizing injection molding by compounding PET with dispersed graphene nanoplatelets using master-batch method to obtain master-batch pellets and forming PET-graphene nanoplatelet nanocomposites
US10899092	(UYPR-N) UNIV PRINCE MOHAMMAD BIN FAHD	Making polyolefin-perovskite nanomaterial composite involves mixing perovskite nanomaterial and polyolefin powder, ball milling, press molding composite powder, inserting needle electrode and subjecting composite plate to alternate current
WO2020260520	(SIND-N) SINDLHAUSER MATERIALS GMBH	Composition for three-dimensional printing of component, comprises lanthanum hexaboride nanoparticulate having preset particle diameter in matrix formed by plastic and matrix formed by metal, metal alloy, and ceramic material
WO2020260520	(SIND-N) SINDLHAUSER MATERIALS GMBH	Composition for three-dimensional printing of component, comprises lanthanum hexaboride nanoparticulate having preset particle diameter in matrix formed by plastic and matrix formed by metal, metal alloy, and ceramic material
WO2020264090	(INDV) UNIV INDIANA	Fiber of prepreg material, has polymeric fiber that is configured to extend in lengthwise direction and is nanofiber and multiple carbon nanotubes that are aligned with polymeric fiber in lengthwise direction
US10857724	(FABK) FACEBOOK TECHNOLOGIES LLC	Method for fabricating nano-sized structure during nanoimprint lithography demolding, involves curing resin element, and removing template from resin element after curing resin element
WO2020230827	(ASAH) ASAHI KASEI KK	Pellet of resin composition used for e.g. industrial machine components such as electromagnetic device housings, roll materials, transport arms, and medical device members, contains thermoplastic resin and cellulose nanofibers
AU2020102278	(UYQI) UNIV TSINGHUA	Preparing recyclable thermoplastic high-voltage direct-current cable nano composite insulating material, comprises e.g. carrying out melt blending on mixture in mixer to obtain the cable nano composite insulating material
EP3789523	(SABI) SABIC GLOBAL TECHNOLOGIES BV	Polymer nanofiber used for sensors, comprises photoactive polycarbonate copolymer and trifluoropropyl polyhedral oligomeric silsesquioxane

## Otros

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021044260	(CANA) NAT RES COUNCIL CANADA	Graded-index device e.g. lens, comprises phase comprising at least one polymer, phase comprising at least one component comprising functional component, and/or functional precursor component and optionally interface
WO2021038347	(MINN) 3M INNOVATIVE PROPERTIES CO	Polymeric sorbent used in composition for sorbing aldehyde in air purifier, respirator filter, comprises sulfonic acid-contains polymeric material covalently attached sulfonic acid groups, precursor polymeric material, urea-based compounds
WO2021026302	(DOWO) DOW SILICONES CORP (ROHM) ROHM & HAAS CO	Polyvinyl chloride composition for preparing a polymer composite article e.g., decking article comprises mineral filler, polyvinyl chloride polymer and organopolysiloxane having silicon-bonded hydroxyl group
WO2021030509	(SUNC-N) SUNCOLOR CORP	Molding composition used to form molded article e.g. lens comprises thermoplastic resin and polysiloxane including phenyl substituents
WO2021024812	(MITU) MITSUBISHI CHEM CORP	Polyether polycarbonate diol used for preparing polyurethane (claimed), and used for synthetic leather, comprises alkoxy terminal group and allyloxy terminal group
WO2021025619	(SGST) AGENCY SCI TECHNOLOGY & RES	Producing porous composite material for sound absorption, involves preparing mixture of mechano-electrical conversion elements and electro thermal conversion elements in organic solvent, mixing mixture of mechano-electrical elements
WO2020262482	(NPPP) JAPAN POLYETHYLENE CORP (NPPP) JAPAN POLYPROPYLENE CORP (NPPP) NIPPON POLYETHYLENE KK	Resin used for film, comprises ionomer comprising copolymer comprising structural unit that is derived from ethylene and/or alpha-olefin, and structural unit that is derived from monomer containing carboxyl group
EP3738742	(BORA) BOREALIS AG	Heterophasic polypropylene composition used for forming article for e.g. injection molded article, comprises propylene random copolymer containing comonomer and linear low density polyethylene having preset density

VOLVER A  
CONTENIDO

# NOTICIAS

## EL SECTOR DE LOS PLÁSTICOS INVERTIRÁ MÁS DE 260 MILLONES DE EUROS PARA LA RECUPERACIÓN VERDE

Con el fin de contribuir a la puesta en marcha del Plan Europeo de Recuperación Next Generation EU y del Plan de Recuperación, Transformación y Resiliencia presentado por el Gobierno, la plataforma EsPlásticos ha promovido una propuesta de macroproyecto tractor en torno a la circularidad de los plásticos y la innovación, impulsando así la transición ecológica que es uno de los pilares del plan, junto con la transformación digital, la cohesión social y territorial y la igualdad.

El macroproyecto presentado por la industria de los plásticos, que está abierto a la adhesión de más empresas, cuenta con la participación de 25 compañías del sector procedentes de 11 comunidades autónomas.

Con una inversión prevista de 262 millones de euros, las empresas adheridas esperan alcanzar un doble objetivo en los próximos cuatro años: generar más de 673 nuevos puestos de trabajo y reducir en ese periodo entre un 10% y un 25% su huella de carbono.

El proyecto cuenta con 17 líneas de actuación que se centran en el ámbito del ecodiseño y reciclabilidad de los productos; la inclusión de nuevas materias primas más sostenibles e innovadoras; la modernización e incremento de capacidad en reciclado mecánico y químico; la concienciación social; la calidad, trazabilidad, caracterización y etiquetado y creación de sistemas inteligentes de recogida de residuos. Además, está previsto trabajar en nuevos sistemas de Responsabilidad Ampliada del Productor (RAP) para plásticos agrícolas, envases y embalajes industriales y comerciales (como cajas de fruta o envases de productos químicos) y otro tipo de productos como redes de pesca y aparejos, palets y textiles.

Fuente: <https://esplasticos.es/2021/03/10/sector-plasticos-invertira-260-millones-recuperacion-verde/>

## PLASTICS ARE FUTURE

Aimplas ha organizado para los días 6 y 7 de octubre la tercera edición de su Seminario Internacional Plastics are Future. Con esta edición en formato híbrido se consolida un evento de impacto mundial.

Una de las principales intenciones de esta edición de Plastics Are Future es la universalidad. Poder llegar lo más lejos posible y ampliar el público objetivo que pueda acceder a las ideas planteadas en el evento. Estamos convencidos que, pese a la visión sesgada de una parte de la sociedad hacia los materiales plásticos, éstos se caracterizan por ser totalmente versátiles y universales. Y esta universalidad la entiendo en el sentido que los materiales plásticos nos los podemos encontrar en cualquier aplicación, en cualquier rincón, en cualquier sector imaginable. Es por ello por lo que queremos borrar esa imagen tan limitada que actualmente se tiene de los plásticos y mostrar hasta dónde pueden llegar, cuál es su horizonte; desde salvarnos la vida, hasta permitir alcanzar planetas remotos como Marte y sus lunas. Para ello, la herramienta más poderosa que tenemos es la información y la capacidad de transmitirla correctamente. En Plastics Are Future 2021 se contarán aplicaciones asombrosas e increíbles, y queremos que llegue al público más diverso posible.

Los materiales deben estar al servicio de las necesidades que la sociedad plantea. Materiales para captura y uso de CO<sub>2</sub>, reducción de contaminantes y consumo de agua, biogenética, microfluídica, control de plagas, envases activos, test rápidos de detección de enfermedades, tratamiento de cáncer, liberación de principio activos y un sinfín de posibilidades en polímeros serán los protagonistas de este evento. Todo

ello dentro de un nuevo marco industrial donde se posicionará la Industria 5.0, la conectividad y Big Data, el mercado de materiales y tecnologías como la impresión 3D, la plastrónica y la impresión flexible.

Fuente: <https://www.plasticsarefuture.com/>

## SABIC COLABORA CON NUDEC PARA INTRODUCIR SU POLICARBONATO RENOVABLE CERTIFICADO EN APLICACIONES DE EDIFICACIÓN Y CONSTRUCCIÓN

Nudec, con sede en Barcelona, es un referente en la fabricación de placas de plástico transparentes para construcción, protección personal y de maquinaria. El acuerdo con SABIC le permitirá utilizar la resina de policarbonato Lexan de esta, producida con materia prima renovable certificada, para fabricar varios de sus productos.

El policarbonato renovable certificado de SABIC es una resina termoplástica de ingeniería y forma parte de la cartera de polímeros circulares Trucircle de la multinacional petroquímica saudí. El análisis del ciclo de vida deja patente que la mencionada resina de policarbonato Lexan de SABIC puede rebajar la huella de carbono hasta un 61%. Asimismo, también reduce el impacto en el consumo de recursos fósiles hasta el 35%.

El policarbonato de SABIC basado en materia prima renovable se produce en la planta que la compañía tiene en la localidad murciana de Cartagena. El año pasado, la planta recibió la Certificación de Sostenibilidad Internacional y de Carbono Plus (ISCC PLUS).

En este sentido, el proceso de producción de este PC se ajusta al concepto del balance de masas. Un proceso que ayuda a trazar el flujo de materiales a lo largo de la cadena de suministro, desde la materia prima hasta el producto final, de forma transparente.

Por lo que respecta a Nudec, también posee la certificación ISCC PLUS que garantiza a los clientes la sostenibilidad de esta cadena de suministro.

Fuente: <https://www.sabic.com/en/news/29237-sabic-collaborates-with-nudec-to-introduce-its-certified-renewable-polycarbonate>

## LOS PLÁSTICOS DE INGENIERÍA ACELERAN EN LAS PIEZAS DE AUTOMOCIÓN

El uso de plásticos para conseguir el aligeramiento de los vehículos a motor es ampliamente conocido. Los nuevos materiales deben cumplir con aplicaciones bajo el capó cada vez más exigentes.

Ya sea para combustión interna convencional motores o sistemas de propulsión de vehículos eléctricos, la industria exige niveles crecientes de rendimiento de componentes de plástico. Los OEM no solo requiere soluciones ligeras que puedan acelerar el reemplazo de metales, sino que los materiales plásticos deben poder soportar una amplia gama de entornos exigentes que involucran extremos de temperatura, agua y exposición a sustancias químicas.

En este artículo se hace revisión a los principales materiales utilizados en el mercado actual, desde poliamidas reforzadas con fibras, poliacetales, PEI... hasta nuevos compuestos para mejorar la resistencia al fuego

Fuente: <http://www.injectionworld.com/>

## ¡ESTRENAMOS HOJA DE RUTA PARA EL 2021-2024 CON NUESTRO PLAN ESTRATÉGICO DE LA OEPM!

Preparados para el futuro con ilusión y con el objetivo de ser una Oficina más moderna, sostenible, digital, innovadora, transparente y cercana a los ciudadanos, la Oficina Española de Patentes y Marcas, O.A. (OEPM) ha publicado y presentado recientemente su Plan Estratégico 2021-2024 (en adelante, PE 2021-2024) en un acto presidido por la Ministra de Industria, Comercio y Turismo, D<sup>ña</sup> Reyes Maroto Illera, por el Subsecretario del MINCOTUR y Presidente de la OEPM, D. Pablo Garde Lobo y por el Director de la OEPM, José A. Gil Celedonio.



El PE 2021-2024 es la carta de presentación de la OEPM como organización nacional e internacional de propiedad industrial, y proporciona el plan de acción necesario para la consecución de los cinco objetivos generales establecidos en el mismo, y así permitir el cumplimiento de la Misión y el alcance de la Visión de la oficina.

Nuestro PE 2021-2024 está diseñado para que la OEPM contribuya al desarrollo económico sostenible y al progreso tecnológico de la sociedad española, promoviendo la innovación, la creatividad y el conocimiento en los sectores públicos y privados, mediante un uso estratégico e inteligente de la Propiedad Industrial. Todo ello, siendo una oficina útil y proactiva, cercana usuarios, con especialistas comprometidos, excelente en su funcionamiento, a la vanguardia de los servicios y de la tecnología, así como abierta a la cooperación y reconocida internacionalmente.

Nuestro PE 2021-2024 se ha desarrollado de manera colaborativa, con la participación de todos los departamentos de la OEPM y las aportaciones de las partes interesadas y el público en general, que han hecho posible obtener un Plan que refuerza a la organización, permitiéndola aprovechar las oportunidades del entorno, preparándola para hacer frente a las dificultades e imprevistos, y asegurando siempre la calidad de sus servicios.

El Plan se ha centrado en los siguientes 5 objetivos generales que, a su vez, se desglosan en 14 estrategias y, dichas estrategias, en un total de 51 proyectos:

- Objetivo 1. Promover un uso estratégico de la Propiedad Industrial (3 estrategias y 13 proyectos).
- Objetivo 2. Favorecer la investigación, el desarrollo y la transferencia de tecnología (3 estrategias y 8 proyectos).
- Objetivo 3. Contribuir a la gobernanza internacional multinivel de la Propiedad Industrial (2 estrategias y 7 proyectos).
- Objetivo 4. Impulsar la lucha contra la falsificación y la vulneración de los derechos de Propiedad Industrial (2 estrategias y 8 proyectos).
- Objetivo 5. Avanzar hacia una OEPM más centrada en las personas, sostenible, digital, innovadora, transparente y eficaz (4 estrategias y 15 proyectos).

El PE 2021-2024 se irá implementando a través de los correspondientes Planes Operativos Anuales (POA), donde se recogerán los proyectos y las actividades concretas que se ejecutarán en el año en curso, y los resultados o efectos específicos a alcanzar.

[Plan Estratégico de la OEPM 2021-2024](#)

[OEPM Strategic Plan 2021-2024](#)

[Plan Operativo Anual 2021](#)

[Vídeo del Plan Estratégico](#)

[Misión, Visión y Valores de la OEPM](#)

## DIAGNÓSTICO DE PROPIEDAD INDUSTRIAL, NUEVO SERVICIO DE LA OEPM PARA AYUDAR A LAS EMPRESAS A CRECER

La *Oficina de Patentes y Marcas, O.A. (OEPM)* acaba de lanzar un nuevo servicio de alto valor añadido para promover la puesta en valor de las empresas españolas en el mercado nacional e internacional. Este servicio pretende fomentar tanto la competitividad como la internacionalización de las empresas españolas, claves en el nuevo Plan Estratégico 2021-2024 de la OEPM.



Expertos cualificados de la OEPM analizan los activos intangibles que posee la empresa y, en base a este análisis, ofrecen unas recomendaciones tendentes a fomentar la implantación de una estrategia de gestión basada en la competitividad y la diferenciación.

El servicio de diagnóstico de Propiedad Industrial surge con vocación de ser una herramienta de sensibilización y de aproximación de la Propiedad Industrial (PI) para las pymes innovadoras y unidades empresariales que no utilizan los derechos de Propiedad Industrial (DPI) o que no los utilizan de forma eficaz. De esta manera, se consiguen dos objetivos complementarios:

- Aumentar el conocimiento y comprensión de los Derechos de Propiedad Industrial (DPI) por parte del tejido empresarial, fomentando su uso adecuado.
- Mostrar la importancia de una adecuada gestión de los DPI para que la empresa pueda definir un plan de acción efectivo a partir de las recomendaciones incorporadas en el informe y tomar decisiones estratégicas de futuro.

Con este servicio, la OEPM quiere convertirse en una administración más proactiva y cercana a las empresas y usuarios de los sistemas de propiedad industrial, dándoles un servicio de altísimo valor añadido que puede llevarles a descubrir unos activos intangibles que se convertirán en clave para su crecimiento económico y para sus iniciativas empresariales futuras.

Durante el año 2021, la Oficina de Propiedad Intelectual de la Unión Europea (EUIPO) ofrecerá bonificaciones para las PYMEs españolas del 75% del coste del servicio mediante la gestión de un Fondo de subvenciones de la Comisión Europea dotado con 20 millones de euros (Fondo para Pymes «*Ideas Powered for Business*»).

*Más información*

## LA PANDEMIA DE COVID19 DA UN IMPULSO AL DESARROLLO DE LA INNOVACIÓN PROTEGIDA Y AL USO DEL SISTEMA DE PROPIEDAD INDUSTRIAL

Una vez cerrado el ejercicio 2020, la *Oficina de Patentes y Marcas, O.A. (OEPM)* dispone de datos estadísticos que permiten atisbar los efectos que, en el ámbito de la innovación protegida, ha tenido el periodo de pandemia causada por el coronavirus SARS-CoV-2.

Durante el año 2020 se solicitaron ante la OEPM un total de 1.483 patentes (presentadas por residentes en España y no residentes). Esto supone un incremento del 9,2% respecto al año 2019.

Este es el primer año de tendencia positiva desde la entrada en vigor de la Ley 24/2015 de patentes, el 1 de abril de 2017.





En el año 2020 la subida del número de solicitudes de modelos de utilidad fue más pronunciada que en patentes, llegando a la cifra de 3.419 solicitudes, lo que supone un incremento del 24,9% respecto a las solicitudes presentadas en el 2019.

En total, los datos relativos a la protección de las innovaciones técnicas en forma de patentes y modelos de utilidad que regula la Ley 24/2015 ponen de relieve un incremento de un 19,7% respecto a años anteriores. Gran parte de esta subida es consecuencia del aumento de la I+D asociada a la pandemia. Efectivamente, un número importante de solicitudes fueron relativas a desinfección (composiciones, recubrimientos, dispositivos, mobiliario, accesorios) y protección (mascarillas, prendas, filtros, pantallas, separadores), además de otras relacionadas con las enfermedades asociadas y su tratamiento.

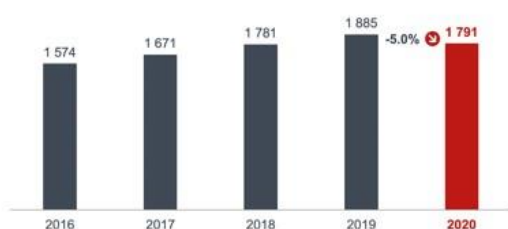
La pandemia también se ha hecho notar en el ámbito de los signos distintivos donde los datos de marcas (51.120 solicitudes) y de nombres comerciales (12.267 solicitudes) han experimentado aumentos del 0,8% y del 5,6%, respectivamente, con relación a las solicitudes presentadas en el año 2019.

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## EL NÚMERO DE SOLICITUDES DE PATENTES EUROPEAS DE ORIGEN ESPAÑOL EN LA OFICINA EUROPEA DE PATENTES ES EL SEGUNDO MEJOR DE LA HISTORIA A PESAR DE LA PANDEMIA

Solicitudes de patentes europeas – España



El pasado 16 de marzo de 2021, la *Oficina Europea de Patentes (OEP)* publicó los datos estadísticos correspondientes al Índice de Patentes 2020 que recoge el número de solicitudes de patente europea del pasado año 2020.

En el caso de España, las solicitudes de patente europea cayeron un 5% en 2020 en comparación con el año anterior, pero en total, alcanzaron su segundo número más alto, según el Índice de Patentes de

publicado hoy por la OEP. Se presentaron 1791 solicitudes de patentes europea de origen español (se incluye en esta magnitud solicitudes de patente europea directas presentadas ante la OEP y las solicitudes internacionales PCT que han entrado en fase regional en la OEP durante el periodo de estudio), 94 solicitudes por debajo del récord de 2019 de 1885 solicitudes, pero aun así superaron el nivel de 2018.

El Consejo Superior de Investigaciones Científicas (CSIC) ha vuelto a ser el primer solicitante español de patentes europeas ante la OEP, seguido de Amadeus y Esteve Pharmaceuticals, Fundación Tecnalia Research & Innovation y Telefónica comparten el tercer puesto.

En España, la industria farmacéutica es el sector tecnológico con mayor número de solicitudes de patentes en la OEP, con 192 solicitudes de patentes presentadas, seguido del sector de la tecnología médica y el sector del transporte, con 126 y 122 solicitudes de patentes presentadas respectivamente. Cabe destacar que el sector del transporte español ha crecido en 2020, a pesar de la fuerte caída global que ha sufrido dicho campo.

En cuanto a regiones, Cataluña es la Comunidad Autónoma que presenta más solicitudes de patentes europeas, seguida de la Comunidad de Madrid y del País Vasco.

