

CPC COOPERATIVE PATENT CLASSIFICATION

B29B PREPARATION OR PRETREATMENT OF THE MATERIAL TO BE SHAPED; MAKING GRANULES OR PREFORMS; RECOVERY OF PLASTICS OR OTHER CONSTITUENTS OF WASTE MATERIAL CONTAINING PLASTICS

7/00	Mixing; Kneading ({for preparation of dough A21C 1/00 ; in general B01F ; combined with calendaring B29C 43/24 , with injection B29C 45/46 , with extrusion B29C 47/36)	7/30	. continuous, with mechanical mixing or kneading devices
7/002	. {Methods (chemical aspects C08J 3/00)}	7/32	. . with non-movable mixing or kneading devices
7/005	. . {for mixing in batches}	7/325	. . . {Static mixers (in general B01F 5/0602)}
7/007	. . {for continuous mixing}	7/34	. . with movable mixing or kneading devices
7/02	. non-continuous, with mechanical mixing or kneading devices, i.e. batch type	7/36	. . . shaking, oscillating or vibrating
7/04	. . with non-movable mixing or kneading devices	7/365	. . . . {by means of axially movable pistons}
7/06	. . with movable mixing or kneading devices	7/38	. . . rotary (B29B 7/52 takes precedence)
7/08	. . . shaking, oscillating or vibrating	7/385	. . . . {fluid mixers}
7/085	. . . . {by means of axially movable pistons}	7/40	. . . . with single shaft
7/10	. . . rotary	7/401	. . . . . {having a casing closely surrounding the rotor, e.g. with a plunger for feeding the material (B29B 7/407 , B29B 7/42 take precedence)}
7/103	. . . . {with rollers or the like in casings}	7/402	. . . . . {using a rotor-stator system with intermeshing elements, e.g. teeth (B29B 7/408 , B29B 7/404 take precedence)}
7/106	. . . . {using rotary casings}	7/404	. . . . . {with feeding or valve actuating means, e.g. with cleaning means}
7/12	. . . . with single shaft	7/405	. . . . . {Mixing heads (B29B 7/404 , B29B 7/42 take precedence; mixing heads without moving stirrer B29B 7/457)}
7/125	. . . . . {having a casing closely surrounding the rotor, e.g. for masticating rubber (with more than one shaft B29B 7/183); Rotors therefor (B29B 7/14 , B29B 7/16 take precedence)}	7/407	. . . . . {with a casing closely surrounding the rotor, e.g. with conical rotor}
7/14	. . . . . with screw or helix	7/408	. . . . . {with mixing elements on a rotor co-operating with mixing elements, perpendicular to the axis of the rotor, fixed on a stator}
7/16	. . . . . with paddles or arms	7/42	. . . . . with screw or helix
7/18	. . . . . with more than one shaft	7/421	. . . . . {with screw and additionally other mixing elements on the same shaft, e.g. paddles, discs, bearings, rotor blades of the Banbury type}
7/183	. . . . . {having a casing closely surrounding the rotors, e.g. of Banbury type (with single shaft B29B 7/125)}	7/422	. . . . . {with screw sections co-operating, e.g. intermeshing, with elements on the wall of the surrounding casing}
7/186	. . . . . . {Rotors therefor}	7/423	. . . . . . {and oscillating axially (in general B01F 11/0057)}
7/20	. . . . . with intermeshing devices, e.g. screws	7/424	. . . . . . {with conical screw surrounded by conical casing}
7/22	. . Component parts, details or accessories; Auxiliary operations	7/425	. . . . . . {with screw surrounded by a casing provided with grooves or cavities}
7/24	. . . for feeding	7/426	. . . . . . {with consecutive casings or screws, e.g. for charging, discharging, mixing}
7/242	. . . . {in measured doses}	7/427	. . . . . . {with independently driven screws rotating about the same axis, e.g. oscillating axially; with axially oscillating screws (B29B 7/423 takes precedence)}
7/244	. . . . . {of several materials}	7/428	. . . . . . {Parts or accessories, e.g. casings, feeding or discharging means}
7/246	. . . . . {in mixers having more than one rotor and a casing closely surrounding the rotors, e.g. with feeding plungers}	7/429	. . . . . . {Screws (B29B 7/421 takes precedence)}
7/248	. . . . . {with plungers for introducing the material, e.g. from below (B29B 7/246 takes precedence)}	7/44	. . . . . with paddles or arms
7/26	. . . for discharging, e.g. doors		
7/263	. . . . {from the underside in mixers having more than one rotor and a casing closely surrounding the rotors}		
7/266	. . . . . {using sliding doors}		
7/28	. . . for measuring, controlling or regulating, e.g. viscosity control ({ B29B 7/242 takes precedence})		
7/283	. . . . {measuring data of the driving system, e.g. torque, speed, power}		
7/286	. . . . {measuring properties of the mixture, e.g. temperature, density (B29B 7/283 takes precedence)}		

- 7/46 with more than one shaft
- 7/465 {each shaft comprising rotor parts of the Banbury type in addition to screw parts}
- 7/48 with intermeshing devices, e.g. screws
- 7/481 {provided with paddles, gears or discs [\(B29B 7/482 takes precedence\)](#)}
- 7/482 {provided with screw parts in addition to other mixing parts, e.g. paddles, gears, discs}
- 7/483 {the other mixing parts being discs perpendicular to the screw axis}
- 7/484 {with two shafts provided with screws, e.g. one screw being shorter than the other [\(B29B 7/482 takes precedence\)](#)}
- 7/485 {with three or more shafts provided with screws}
- 7/486 {with screws surrounded by a casing provided with grooves or cavities}
- 7/487 {with consecutive casings or screws, e.g. for feeding, discharging, mixing}
- 7/488 {Parts, e.g. casings, sealings; Accessories, e.g. flow controlling or throttling devices [\(discharging B29B 7/582; feeding B29B 7/60\)](#)}
- 7/489 {Screws [\(B29B 7/482 takes precedence\)](#)}
- 7/50 with rotary casing
- 7/52 with rollers or the like, e.g. calenders
- 7/523 {co-operating with casings}
- 7/526 {with two or more rollers}
- 7/54 with a single roller co-operating with a stationary member {other than the casing}
- 7/56 with co-operating rollers {, e.g. with repeated action, i.e. the material leaving a set of rollers being reconducted to the same set or being conducted to a next set}
- 7/562 {with means for axially moving the material on the rollers}
- 7/564 {at least one of the rollers being provided with helicoidal grooves or ridges, e.g. followed by axial extrusion}
- 7/566 {provided with means to take material away from a set of rollers and to reconduct it to the same set; provided with endless belts, e.g. which can be in or out of cooperation with at least one of the rollers}
- 7/568 {with consecutive sets of rollers or a train of rollers}
- 7/58 Component parts, details or accessories; Auxiliary operations
- 7/582 {for discharging, e.g. doors}
- 7/584 {for mixers with rollers, e.g. wedges, guides, pressing means, thermal conditioning}
- 7/586 {Drives}
- 7/588 {cutting devices, e.g. movable cutting devices [\(scrapers for stripping the material from rollers B29B 7/645\)](#)}
- 7/60 for feeding, e.g. end guides for the incoming material {[\(B29B 7/7615 takes precedence; feeding predetermined amounts for mixing in general B01F 15/0216\)](#)}
- 7/603 {in measured doses, e.g. proportioning of several materials}
- 7/606 {specially adapted for feeding calenders or the like}
- 7/62 Rollers, e.g. with grooves [\(B29B 7/564 takes precedence\)](#)
- 7/625 {provided with cooling or heating means}
- 7/64 Stripping the material from the rollers
- 7/645 {by means of a scraper moving in the axial direction of the rollers}
- 7/66 Recycling the material {[\(B29B 7/566 takes precedence\)](#)}
- 7/68 Positioning of rollers
- 7/70 Conditioning of rollers, e.g. cleaning
- 7/72 Measuring, controlling or regulating
- 7/722 {Safety devices}
- 7/724 {for continuous roller mixers, e.g. calenders [\(B29B 7/722 takes precedence\)](#)}
- 7/726 {Measuring properties of mixture, e.g. temperature or density [\(B29B 7/724 takes precedence\)](#)}
- 7/728 {Measuring data of the driving system, e.g. torque, speed, power, vibration [\(B29B 7/724 takes precedence\)](#)}
- 7/74 using other mixers or combinations of {mixers, e.g. of dissimilar mixers; {Plant}}
- 7/7404 {Mixing devices specially adapted for foamable substances [\(B29B 7/76 takes precedence\)](#)}
- 7/7409 {with supply of gas}
- 7/7414 {with rotatable stirrer, e.g. using an intermeshing rotor-stator system [\(B29B 7/7423 takes precedence\)](#)}
- 7/7419 {with static or injector mixer elements}
- 7/7423 {preceded or followed by rotatable stirring device}
- 7/7428 {Methodical aspects}
- 7/7433 {Plants}
- 7/7438 {Mixing guns, i.e. hand-held mixing units having dispensing means [\(B29B 7/761, B29B 7/7678 take precedence\)](#)}
- 7/7442 {with driven stirrer}
- 7/7447 {including means for feeding the components}
- 7/7452 {for mixing components by spraying them into each other; for mixing by intersecting sheets}
- 7/7457 {Mixing heads without moving stirrer [\(B29B 7/7438, B29B 7/76 take precedence\)](#)}
- 7/7461 {Combinations of dissimilar mixers}
- 7/7466 {Combinations of similar mixers}
- 7/7471 {Mixers in which the mixing takes place at the inlet of a mould, e.g. mixing chambers situated in the mould opening}
- 7/7476 {Systems, i.e. flow charts or diagrams; Plants}
- 7/748 {Plants [\(B29B 7/7433, B29B 7/7485, B29B 7/7495 take precedence\)](#)}
- 7/7485 {with consecutive mixers, e.g. with premixing some of the components}
- 7/749 {with stirring means for the individual components before they are mixed together}
- 7/7495 {for mixing rubber}
- 7/76 {Mixers} with stream-impingement mixing head
- 7/7605 {having additional mixing arrangements [\(B29B 7/7673 takes precedence\)](#)}
- 7/761 {of gun-type, i.e. hand-held units having dispensing means [\(B29B 7/7678 takes precedence\)](#)}

- 7/7615 . . . {characterised by arrangements for controlling, measuring or regulating, e.g. for feeding or proportioning the components}
- 7/7621 {involving introducing a gas or another component in at least one of the components}
- 7/7626 {using measuring chambers of piston or plunger type ([B29B 7/7621 takes precedence](#); for mixing in general [B01F 15/0454](#))}
- 7/7631 . . . {Parts; Accessories ([B29B 7/7684 takes precedence](#))}
- 7/7636 {Construction of the feed orifices, bores, ports}
- 7/7642 {Adjustable feed orifices, e.g. for controlling the rate of feeding}
- 7/7647 {Construction of the mixing conduit module or chamber part}
- 7/7652 {Construction of the discharge orifice, opening or nozzle}
- 7/7657 {Adjustable discharge orifices, openings or nozzle openings, e.g. for controlling the rate of dispensing}
- 7/7663 . . . {the mixing head having an outlet tube with a reciprocating plunger, e.g. with the jets impinging in the tube}
- 7/7668 {having a second tube intersecting the first one with the jets impinging in the second tube}
- 7/7673 {having additional mixing arrangements ([B29B 7/7668 takes precedence](#))}
- 7/7678 {of the gun type, i.e. hand-held units}
- 7/7684 {Parts; Accessories}
- 7/7689 {Plunger constructions}
- 7/7694 {comprising recirculation channels; ducts formed in the plunger}
- 7/78 . . by gravity, e.g. falling particle mixers
- 7/80 . Component parts, details or accessories; Auxiliary operations ([B29B 7/22](#), [B29B 7/58 take precedence](#), {[cleaning mixers B01F 15/00019](#)})
- 7/801 . . {Valves}
- 7/802 . . {Constructions or methods for cleaning the mixing or kneading device ([cleaning in general B08B](#))}
- 7/803 . . . {Cleaning of mixers of the gun type, stream-impingement type, mixing heads}
- 7/805 {Cleaning of the mixing conduit, module or chamber part}
- 7/806 {Cleaning of the discharge opening, e.g. orifice of the dispenser}
- 7/807 {Cleaning of the central body of the plunger}
- 7/808 {Cleaning of the plunger tip}
- 7/82 . . Heating or cooling
- 7/823 . . . {Temperature control}
- 7/826 . . . {Apparatus therefor}
- 7/84 . . Venting or degassing {; Removing liquids, e.g. by evaporating components}
- 7/842 . . . {Removing liquids in liquid form}
- 7/845 . . . {Venting, degassing or removing evaporated components in devices with rotary stirrers}
- 7/847 {Removing of gaseous components before or after mixing}
- 7/86 . . for working at sub- or superatmospheric pressure {([B01F 13/06 takes precedence](#))}
- 7/88 . . Adding charges, {i.e. additives}
- 7/885 . . . {with means for treating, e.g. milling, the charges ([B29B 7/905 takes precedence](#))}
- 7/90 . . . Fillers or reinforcements {, e.g. fibres}
- 7/905 {with means for pretreatment of the charges or fibres}
- 7/92 Wood chips or wood fibres
- 7/94 . . . Liquid charges
- 7/945 {involving coating particles}
- 9/00 Making granules (in general [B01J](#); chemical aspects [C08J 3/12](#))**
 - 9/02 . by dividing preformed material
 - 9/04 . . in the form of plates or sheets
 - 9/06 . . in the form of filamentary material, e.g. combined with extrusion
 - 9/065 . . . {under-water, e.g. underwater pelletizers}
 - 9/08 . by agglomerating smaller particles
 - 9/10 . by moulding the material, i.e. treating it in the molten state
 - 9/12 . characterised by structure or composition
 - 2009/125 . . {Micropellets, microgranules, microparticles}
 - 9/14 . . fibre-reinforced
 - 9/16 . Auxiliary treatment of granules
 - 2009/161 . . {Absorbing, i.e. introducing a gas, a liquid or a solid material into the granules}
 - 2009/163 . . {Coating, i.e. applying a layer of liquid or solid material on the granule}
 - 2009/165 . . {Crystallizing granules}
 - 2009/166 . . {Deforming granules to give a special form, e.g. spheroidizing, rounding}
 - 2009/168 . . {Removing undesirable residual components, e.g. solvents, unreacted monomers; Degassing}
- 11/00 Making preforms ([B29C 61/06 takes precedence](#); {combined with blow-moulding [B29C 49/02](#), with thermoforming [B29C 51/02](#); making preforms for manufacturing of light guides [B29D 11/00721](#)})**
 - 11/02 . by dividing preformed material, e.g. sheets, rods
 - 11/04 . by assembling preformed material
 - 11/06 . by moulding the material
 - 11/08 . . Injection moulding
 - 11/10 . . Extrusion moulding
 - 11/12 . . Compression moulding
 - 11/14 . characterised by structure or composition
 - 11/16 . . comprising fillers or reinforcement {(non-woven fabrics [per se D04H 1/00](#), [D04H 3/00](#))}
- 13/00 Conditioning or physical treatment of the material to be shaped (chemical aspects [C08J 3/00](#) {heating, cooling or curing during shaping [B29C 35/00](#); Thermal after-treatment [B29C 71/02](#)})**
 - 2013/002 . {Extracting undesirable residual components, e.g. solvents, unreacted monomers, from material to be moulded}
 - 2013/005 . {Degassing undesirable residual components, e.g. gases, unreacted monomers, from material to be moulded}
 - 13/007 . {Treatment of sinter powders}
 - 13/02 . by heating ([B29B 13/06](#), [B29B 13/08 take precedence](#))
 - 13/021 . . {Heat treatment of powders}
 - 13/022 . . {Melting the material to be shaped}
 - 13/023 . . {Half-products, e.g. films, plates}

13/024	. . . {Hollow bodies, e.g. tubes or profiles}	17/0042	. . {for shaping parts, e.g. multilayered parts with at least one layer containing regenerated plastic}
13/025	. . . . {Tube ends}	17/0047	. . {Compacting complete waste articles}
2013/026	. . . {Obtaining a uniform temperature over the whole surface of films or tubes}	17/0052	. . . {Hollow articles, e.g. bottles}
2013/027	. . . {Obtaining a temperature gradient over the surface of films or tubes}	2017/0057	. . . . {Externally powered deformation tools, e.g. tools being part of relatively big non domestic installations, powered by motors}
2013/028	. . . {Obtaining a temperature gradient across the wall thickness of plates or tubes}	2017/0063	. . . . {Manually driven deformation tools, e.g. tools being part of domestic installations}
13/04	. by cooling (cooling moulded articles or half products B29C 35/16)	2017/0068	. . . . {Softening the hollow articles by heat and causing permanent deformation}
13/045	. . {of powders or pellets}	2017/0073	. . . . {Removing caps or labels during deformation}
13/06	. by drying (B29B 13/08 takes precedence; {drying moulded articles or half products B29C 37/0092})	2017/0078	. . . . {Maintaining the deflated state, e.g. by mounting original screw lids after deformation}
13/065	. . {of powder or pellets}	2017/0084	. . . . {Deflating the hollow articles by vacuum; Details of the nozzles used in the vacuum generating devices}
13/08	. by using wave energy or particle radiation	2017/0089	. {Recycling systems, wherein the flow of products between producers, sellers and consumers includes at least a recycling step, e.g. the products being fed back to the sellers or to the producers for recycling purposes}
13/10	. by grinding, e.g. by triturating; by sieving; by filtering	2017/0094	. {Mobile recycling devices, e.g. devices installed in truck trailers}
15/00	Pretreatment of the material to be shaped, not covered by groups B29B 7/00 - B29B 13/00	17/02	. Separating plastics from other materials
15/02	. of crude rubber, gutta-percha, or similar substances (tapping latex A01G ; Chemical aspects C08C)	2017/0203	. . {Separating plastics from plastics}
15/023	. . {Breaking up rubber bales}	17/0206	. . {Selectively separating reinforcements from matrix material by destroying the interface bound before desintegrating the matrix to particles or powder, e.g. from tires or belts}
15/026	. . {Baling of rubber}	17/021	. . . {using local heating of the reinforcement}
15/04	. . Coagulating devices	2017/0213	. . {Specific separating techniques}
15/06	. . Washing devices	2017/0217	. . . {Mechanical separating techniques; devices therefor}
15/08	. of reinforcements or fillers (chemical aspects C08J, C08K)	2017/022	. . . . {Grippers, hooks, piercing needles, fingers, e.g. mounted on robots}
15/10	. . Coating or impregnating {independently of the moulding or shaping step} (applying liquids in general B05)	2017/0224	. . . . {Screens, sieves}
	NOTE	2017/0227	. . . . {Vibratory or shaking tables}
	Where the coating or impregnating is combined with moulding the documents are classified in B29C 53/8066 , B29C 70/00	2017/0231	. . . . {Centrifugating, cyclones}
15/105	. . . {of reinforcement of definite length with a matrix in solid form, e.g. powder, fibre or sheet form (calendering B29C 70/506)}	2017/0234	. . . . {using gravity, e.g. separating by weight differences in a wind sifter}
15/12	. . . of reinforcements of indefinite length	2017/0237	. . . . {using density difference}
15/122	. . . . {with a matrix in liquid form, e.g. as melt, solution or latex}	2017/0241	. . . . {in gas, e.g. air flow}
15/125	. . . . . {by dipping}	2017/0244	. . . . . {in liquids}
15/127	. . . . . {by spraying}	2017/0248	. . . . {Froth flotation, i.e. wherein gas bubbles are attached to suspended particles in an aerated liquid}
15/14	. . . . of filaments or wires	2017/0251	. . . . {Hydropulping for converting the material under the influence of water into a slurry, e.g. for separating laminated plastic from paper}
17/00	Recovery of plastics or other constituents of waste material containing plastics; (volume reduction of waste plastics, e.g. by mechanical compacting or melting disposal of solid waste B09B; chemical recovery C08J 11/00)	2017/0255	. . . {using different melting or softening temperatures of the materials to be separated}
17/0005	. {Direct recuperation and re-use of scrap material during moulding operation, i.e. feed-back of used material}	2017/0258	. . . . {using heated surfaces for selective softening or melting of at least one plastic ingredient}
2017/001	. {Pretreating the materials before recovery}	2017/0262	. . . {using electrical characteristics}
2017/0015	. . {Washing, rinsing}	2017/0265	. . . . {Electrostatic separation}
2017/0021	. . {Dividing in large parts}	2017/0268	. . . {Separation of metals}
17/0026	. {by agglomeration or compacting}	2017/0272	. . . . {Magnetic separation}
2017/0031	. . {Melting the outer surface of compressed waste, e.g. for forming briquets by expelling the compressed waste material through a heated tool}	2017/0275	. . . {using chemical sensors, e.g. analysing gasified constituents}
17/0036	. . {of large particles, e.g. beads, granules, pellets, flakes, slices}		

2017/0279	. . . {Optical identification, e.g. cameras or spectroscopy}	2911/14073	. . . . . partially
2017/0282	. . . {using information associated with the materials, e.g. labels on products}	2911/1408	. . . . . at body portion
2017/0286	. . . {Cleaning means used for separation}	2911/14086	. . . . . partially
2017/0289	. . . . {Washing the materials in liquids}	2911/14093	. . . . . at bottom portion
2017/0293	. . . {Dissolving the materials in gases or liquids}	2911/141	. . . . . partially
2017/0296	. . . . {Dissolving the materials in aqueous alkaline solutions, e.g. NaOH or KOH}	2911/14106	. . . . . having at least one layer
17/04	. Disintegrating plastics, {e.g. by milling} (B29B 9/02, B29B 11/02, B29B 13/10, B29B 17/02) take precedence)	2911/14113	. . . . . having at least two layers
17/0404	. . {to powder}	2911/1412	. . . . . having at least three layers
17/0408	. . . {using cryogenic systems}	2911/14126	. . . . . having more than three layers
17/0412	. . {to large particles, e.g. beads, granules, flakes, slices}	2911/14133	. . . . . having at least one layer being injected
2017/0416	. . {Cooling the plastics before disintegration, e.g. freezing}	2911/1414	. . . . . having at least two layers being injected
2017/042	. . {Mixing disintegrated particles or powders with other materials, e.g. with virgin materials}	2911/14146	. . . . . having at least three layers being injected
2017/0424	. . {Specific disintegrating techniques; devices therefor}	2911/14153	. . . . . having more than three layers being injected
2017/0428	. . . {Jets of high pressure fluid}	2911/1416	. . . . . having at least one layer being extruded
2017/0432	. . . . {Abrasive blasting, i.e. the jets being charged with abrasives}	2911/14166	. . . . . having at least two layers being extruded
2017/0436	. . . {Immersion baths}	2911/14173	. . . . . having at least three layers being extruded
2017/044	. . . {Knives}	2911/1418	. . . . . having more than three layers being extruded
2017/0444	. . . {Cutting wires, e.g. vibrating wires}	2911/14186	. . . . . having at least one layer being thermoformed
2017/0448	. . . {Cutting discs}	2911/14193	. . . . . having at least two layers being thermoformed
2017/0452	. . . . {the discs containing abrasives}	2911/142	. . . . . having at least three layers being thermoformed
2017/0456	. . . {Pressing tools with calibrated openings, e.g. in sizing plates, for disintegrating solid materials}	2911/14206	. . . . . having more than three layers being thermoformed
2017/046	. . . {Extruder as pressing tool with calibrated die openings for forming and disintegrating pasty or melted material}	2911/14213	. . . . . having at least one layer being compression moulded
2017/0464	. . . {Solid state shear extrusion pulverisation}	2911/1422	. . . . . having at least two layers being compression moulded
2017/0468	. . . {Crushing, i.e. disintegrating into small particles}	2911/14226	. . . . . having at least three layers being compression moulded
2017/0472	. . . {Balls or rollers in a container}	2911/14233	. . . . . having more than three layers being compression moulded
2017/0476	. . . {Cutting or tearing members, e.g. spiked or toothed cylinders or intermeshing rollers}	2911/1424	. . . . . having at least one layer being applied using techniques not covered by B29B 2911/14133 - B29B 2911/14213
2017/048	. . . {Cutter-compactors, e.g. of the EREMA type}	2911/14246	. . . . . having at least two layers being applied using said techniques
2017/0484	. . . {Grinding tools, roller mills or disc mills}	2911/14253	. . . . . having at least three layers being applied using said techniques
2017/0488	. . . {Hammers or beaters}	2911/1426	. . . . . having more than three layers being applied using said techniques
2017/0492	. . . {Projecting the material on stationary or moving impact surfaces or plates}	2911/14266	. . . . . Type of said techniques not covered by B29B 2911/14133 - B29B 2911/14213
2017/0496	. . . {Pyrolysing the materials}	2911/14273	. . . . . Spray coating
2911/00	Indexing scheme related to making preforms for blow-moulding bottles or the like (not used)	2911/1428	. . . . . Dip coating
2911/14	. Layer configuration, geometry, dimensions or physical properties of preforms for blow-moulding bottles or the like (not used)	2911/14286	. . . . . Powder coating
2911/14006	. . layer configuration (not used)	2911/14293	. . . . . Casting
2911/14013	. . . monolayered	2911/143	. . . . . Interaction between at least two layers
2911/1402	. . . . at neck portion	2911/14306	. . . . . by welding
2911/14026	. . . . at flange portion	2911/14313	. . . . . by using adhesives
2911/14033	. . . . at body portion	2911/1432	. . Geometry (not used)
2911/1404	. . . . at bottom portion		
2911/14046	. . . multilayered		
2911/14053	. . . . at neck portion		
2911/1406	. . . . . partially		
2911/14066	. . . . at flange portion		

2911/14326 . . . Variable wall thickness

WARNING

Group [B29B 2911/14326](#) is impacted by reclassification into groups [B29B 2911/14328](#) - [B29B 2911/14332](#).

Groups [B29B 2911/14326](#) and [B29B 2911/14328](#) - [B29B 2911/14332](#) should be considered in order to perform a complete search.

2911/14328 . . . at neck portion

2911/1433 . . . at flange portion

2911/14331 . . . at body portion

2911/14332 . . . at bottom portion

2911/14333 . . . Variable diameter

WARNING

Group [B29B 2911/14333](#) is impacted by reclassification into groups [B29B 2911/14335](#) - [B29B 2911/14338](#).

Groups [B29B 2911/14333](#) and [B29B 2911/14335](#) - [B29B 2911/14338](#) should be considered in order to perform a complete search.

2911/14335 . . . at neck portion

2911/14336 . . . at flange portion

2911/14337 . . . at body portion

2911/14338 . . . at bottom portion

2911/1434 . . . Ribs or protrusions

WARNING

Group [B29B 2911/1434](#) is impacted by reclassification into groups [B29B 2911/14341](#) - [B29B 2911/14345](#).

Groups [B29B 2911/1434](#) and [B29B 2911/14341](#) - [B29B 2911/14345](#) should be considered in order to perform a complete search.

2911/14341 . . . at neck portion

2911/14343 . . . at flange portion

2911/14344 . . . at body portion

2911/14345 . . . at bottom portion

2911/14346 . . . Internal separating wall

WARNING

Group [B29B 2911/14346](#) is impacted by reclassification into groups [B29B 2911/14348](#) - [B29B 2911/14352](#).

Groups [B29B 2911/14346](#) and [B29B 2911/14348](#) - [B29B 2911/14352](#) should be considered in order to perform a complete search.

2911/14348 . . . at neck portion

2911/1435 . . . at flange portion

2911/14351 . . . at body portion

2911/14352 . . . at bottom portion

2911/14353 . . . Special shape

2911/1436 . . . Special overall shape

2911/14366 . . . Conical

2911/14373 . . . Axially asymmetrical

2911/1438 . . . Elliptic or oval cross-section shape

2911/14386 . . . Rectangular cross-section shape

2911/14393 . . . Hexagonal cross-section shape

2911/144 . . . Shape allows stacking or nesting

2911/14406 . . . Special shape of specific parts of preform

2911/14413 . . . Special lip, i.e. very top of preform neck

2911/1442 . . . Special neck

2911/14426 . . . Wide-mouth

2911/14433 . . . Closure retaining means

2911/1444 . . . Threads

2911/14446 . . . Interrupted threads

2911/14453 . . . Inner threads

2911/1446 . . . No threads

2911/14466 . . . Tamper-evident band retaining ring

2911/14473 . . . Special flange

2911/1448 . . . Special body

2911/14486 . . . Special bottom

2911/14493 . . . Special sprue, i.e. injection mark

2911/145 . . . Special pinch-off portion

2911/14506 . . . Auxiliary parts or inserts

2911/14513 . . . Handle

2911/1452 . . . Closure

2911/14526 . . . Transport means

2911/14533 . . . Dispensing spout

2911/1454 . . . Parts to assist orientation of preform, e.g. in mould

2911/14546 . . . at neck portion

2911/14553 . . . at flange portion

2911/1456 . . . at body portion

2911/14566 . . . at bottom portion

2911/14573 . . . Preform, i.e. neck, flange, body and bottom, made of several individual parts

2911/1458 . . . Finish neck ring

2911/14586 . . . Mentioned dimensions (**not used**)

2911/14593 . . . Wall thickness

2911/146 . . . of the lip, i.e. the very top of the preform neck

2911/14606 . . . of the neck

2911/14613 . . . of the threads

2911/1462 . . . of the tamper-evident band retaining ring

2911/14626 . . . of the flange

2911/14633 . . . of the body

2911/1464 . . . of the bottom

2911/14646 . . . of a layer

2911/14653 . . . Diameter, D

2911/1466 . . . of the lip, i.e. the very top of the preform neck

2911/14666 . . . of the neck

2911/14673 . . . of the threads

2911/1468 . . . of the tamper-evident band retaining ring

2911/14686 . . . of the flange

2911/14693 . . . of the body

2911/147 . . . of the bottom

2911/14706 . . . of a layer

2911/14713 . . . Height, length, L

2911/1472 . . . of the lip, i.e. the very top of the preform neck

2911/14726 . . . of the neck

2911/14733 . . . of the threads

2911/1474 . . . of the tamper-evident band retaining ring

2911/14746 . . . of the flange

2911/14753 . . . of the body

2911/1476 . . . of the bottom

B29B

2911/14766	. . . .	of a layer
2911/14773	. . .	Ratio L/D
2911/1478	. . .	Angle
2911/14786	. . . .	of the lip, i.e. the very top of the preform neck
2911/14793	. . . .	of the neck
2911/148	. . . .	of the threads
2911/14806	. . . .	of the tamper-evident band retaining ring
2911/14813	. . . .	of the flange
2911/1482	. . . .	of the body
2911/14826	. . . .	of the bottom
2911/14833	. . . .	of a layer
2911/1484	. . .	Curvature, e.g. radius
2911/14846	. . . .	of the lip, i.e. the very top of the preform neck
2911/14853	. . . .	of the neck
2911/1486	. . . .	of the threads
2911/14866	. . . .	of the tamper-evident band retaining ring
2911/14873	. . . .	of the flange
2911/1488	. . . .	of the body
2911/14886	. . . .	of the bottom
2911/14893	. . . .	of a layer
2911/149	. .	Mentioned values not covered by B29B 2911/14586
2911/14906	. . .	Crystallinity
2911/14913	. . . .	at the neck portion
2911/1492	. . . .	at the flange portion
2911/14926	. . . .	at the body portion
2911/14933	. . . .	at the bottom portion
2911/1494	. . .	Surface roughness
2911/14946	. . . .	at the neck portion
2911/14953	. . . .	at the flange portion
2911/1496	. . . .	at the body portion
2911/14966	. . . .	at the bottom portion
2911/14973	. . .	Optical properties
2911/1498	. . .	Weight
2911/14986	. . .	Composition
2911/14993	. . . .	Recycled material