

**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****B29B 7/00**

**Mixing; Kneading** ({ for preparation of dough [A21C 1/00](#); } in general [B01F](#); combined with calendering [B29C 43/24](#), with injection [B29C 45/46](#), with extrusion [B29C 47/36](#))

- B29B 7/002 . { Methods (chemical aspects [C08J 3/00](#)) }
- B29B 7/005 .. { for mixing in batches }
- B29B 7/007 .. { for continuous mixing }
  
- B29B 7/02 . non-continuous, with mechanical mixing or kneading devices, i.e. batch type
- B29B 7/04 .. with non-movable mixing or kneading devices
- B29B 7/06 .. with movable mixing or kneading devices
- B29B 7/08 ... shaking, oscillating or vibrating
- B29B 7/085 .... { by means of axially movable pistons }
- B29B 7/10 ... rotary
- B29B 7/103 .... { with rollers or the like in casings }
- B29B 7/106 .... { using rotary casings }
- B29B 7/12 .... with single shaft
- B29B 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) }
- B29B 7/14 ..... with screw or helix
- B29B 7/16 ..... with paddles or arms
- B29B 7/18 .... with more than one shaft
- B29B 7/183 ..... { having a casing closely surrounding the rotors, e.g. of Banbury type (with single shaft [B29B 7/125](#)) }
- B29B 7/186 ..... { Rotors therefor }
- B29B 7/20 ..... with intermeshing devices, e.g. screws
- B29B 7/22 .. Component parts, details or accessories; Auxiliary operations
- B29B 7/24 ... for feeding
- B29B 7/242 .... { in measured doses }
- B29B 7/244 ..... { of several materials }
- B29B 7/246 .... { in mixers having more than one rotor and a casing closely surrounding the rotors, e.g. with feeding plungers }
- B29B 7/248 .... { with plungers for introducing the material, e.g. from below ([B29B 7/246](#) takes precedence) }
- B29B 7/26 ... for discharging, e.g. doors

B29B 7/263	....	{ from the underside in mixers having more than one rotor and a casing closely surrounding the rotors }
B29B 7/266	.....	{ using sliding doors }
B29B 7/28	...	for measuring, controlling or regulating, e.g. viscosity control {(B29B 7/242 takes precedence)}
B29B 7/283	....	{ measuring data of the driving system, e.g. torque, speed, power }
B29B 7/286	....	{ measuring properties of the mixture, e.g. temperature, density (B29B 7/283 takes precedence)}
B29B 7/30	.	continuous, with mechanical mixing or kneading devices
B29B 7/32	..	with non-movable mixing or kneading devices
B29B 7/325	...	{ Static mixers (in general B01F 5/0602)}
B29B 7/34	..	with movable mixing or kneading devices
B29B 7/36	...	shaking, oscillating or vibrating
B29B 7/365	....	{ by means of axially movable pistons }
B29B 7/38	...	rotary (B29B 7/52 takes precedence)
B29B 7/385	....	{ fluid mixers }
B29B 7/40	....	with single shaft
B29B 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)}
B29B 7/402	.....	{ using a rotor-stator system with intermeshing elements, e.g. teeth (B29B 7/408, B29B 7/404 take precedence)}
B29B 7/404	.....	{ with feeding or valve actuating means, e.g. with cleaning means }
B29B 7/405	.....	{ Mixing heads (B29B 7/404, B29B 7/42 take precedence; mixing heads without moving stirrer B29B 7/7457)}
B29B 7/407	.....	{ with a casing closely surrounding the rotor, e.g. with conical rotor }
B29B 7/408	.....	{ with mixing elements on a rotor co-operating with mixing elements, perpendicular to the axis of the rotor, fixed on a stator }
B29B 7/42	.....	with screw or helix
B29B 7/421	.....	{ with screw and additionally other mixing elements on the same shaft, e.g. paddles, discs, bearings, rotor blades of the Banbury type }
B29B 7/422	.....	{ with screw sections co-operating, e.g. intermeshing, with elements on the wall of the surrounding casing }
B29B 7/423	.....	{ and oscillating axially (in general B01F 11/0057)}
B29B 7/424	.....	{ with conical screw surrounded by conical casing }
B29B 7/425	.....	{ with screw surrounded by a casing provided with grooves or cavities }
B29B 7/426	.....	{ with consecutive casings or screws, e.g. for charging, discharging, mixing }
B29B 7/427	.....	{ with independently driven screws rotating about the same axis, e.g. oscillating axially; with axially oscillating screws (B29B 7/423 takes precedence)}
B29B 7/428	.....	{ Parts or accessories, e.g. casings, feeding or discharging means }
B29B 7/429	.....	{ Screws (B29B 7/421 takes precedence)}

B29B 7/44	.....	with paddles or arms
B29B 7/46	....	with more than one shaft
B29B 7/465	.....	{ each shaft comprising rotor parts of the Banbury type in addition to screw parts }
B29B 7/48	.....	with intermeshing devices, e.g. screws
B29B 7/481	.....	{ provided with paddles, gears or discs ( <a href="#">B29B 7/482</a> takes precedence)}
B29B 7/482	.....	{ provided with screw parts in addition to other mixing parts, e.g. paddles, gears, discs }
B29B 7/483	.....	{ the other mixing parts being discs perpendicular to the screw axis }
B29B 7/484	.....	{ with two shafts provided with screws, e.g. one screw being shorter than the other ( <a href="#">B29B 7/482</a> takes precedence)}
B29B 7/485	.....	{ with three or more shafts provided with screws }
B29B 7/486	.....	{ with screws surrounded by a casing provided with grooves or cavities }
B29B 7/487	.....	{ with consecutive casings or screws, e.g. for feeding, discharging, mixing }
B29B 7/488	.....	{ Parts, e.g. casings, sealings; Accessories, e.g. flow controlling or throttling devices ( <a href="#">discharging B29B 7/582</a> ; <a href="#">feeding B29B 7/60</a> )}
B29B 7/489	.....	{ Screws ( <a href="#">B29B 7/482</a> takes precedence)}
B29B 7/50	....	with rotary casing
B29B 7/52	...	with rollers or the like, e.g. calenders
B29B 7/523	....	{ co-operating with casings }
B29B 7/526	.....	{ with two or more rollers }
B29B 7/54	....	with a single roller co-operating with a stationary member { other than the casing }
B29B 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 }
B29B 7/562	.....	{ with means for axially moving the material on the rollers }
B29B 7/564	.....	{ at least one of the rollers being provided with helicoidal grooves or ridges, e.g. followed by axial extrusion }
B29B 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 }
B29B 7/568	.....	{ with consecutive sets of rollers or a train of rollers }
B29B 7/58	..	Component parts, details or accessories; Auxiliary operations
B29B 7/582	...	{ for discharging, e.g. doors }
B29B 7/584	...	{ for mixers with rollers, e.g. wedges, guides, pressing means, thermal conditioning }
B29B 7/586	....	{ Drives }
B29B 7/588	....	{ cutting devices, e.g. movable cutting devices ( <a href="#">scrapers for stripping the material from rollers B29B 7/645</a> )}

- B29B 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](#))}
- B29B 7/603       ....       { in measured doses, e.g. proportioning of several materials }
- B29B 7/606       ....       { specially adapted for feeding calenders or the like }
- B29B 7/62         ...       Rollers, e.g. with grooves ([B29B 7/564](#) takes precedence)
- B29B 7/625       ....       { provided with cooling or heating means }
- B29B 7/64         ...       Stripping the material from the rollers
- B29B 7/645       ....       { by means of a scraper moving in the axial direction of the rollers }
- B29B 7/66         ...       Recycling the material {([B29B 7/566](#) takes precedence)}
- B29B 7/68         ...       Positioning of rollers
- B29B 7/70         ...       Conditioning of rollers, e.g. cleaning
- B29B 7/72         ...       Measuring, controlling or regulating
- B29B 7/722       ....       { Safety devices }
- B29B 7/724       ....       { for continuous roller mixers, e.g. calenders ([B29B 7/722](#) takes precedence)}
- B29B 7/726       ....       { Measuring properties of mixture, e.g. temperature or density ([B29B 7/724](#) takes precedence)}
- B29B 7/728       ....       { Measuring data of the driving system, e.g. torque, speed, power, vibration ([B29B 7/724](#) takes precedence)}
- B29B 7/74         .        using other mixers or combinations of { mixers, e.g. of } dissimilar mixers; { Plant }
- B29B 7/7404       ..       { Mixing devices specially adapted for foamable substances ([B29B 7/76](#) takes precedence)}
- B29B 7/7409       ...       { with supply of gas }
- B29B 7/7414       ....       { with rotatable stirrer, e.g. using an intermeshing rotor-stator system ([B29B 7/7423](#) takes precedence)}
- B29B 7/7419       ....       { with static or injector mixer elements }
- B29B 7/7423       .....       { preceded or followed by rotatable stirring device }
- B29B 7/7428       ....       { Methodical aspects }
- B29B 7/7433       ...       { Plants }
- B29B 7/7438       ..       { Mixing guns, i.e. hand-held mixing units having dispensing means ([B29B 7/761](#), [B29B 7/7678](#) take precedence)}
- B29B 7/7442       ...       { with driven stirrer }
- B29B 7/7447       ...       { including means for feeding the components }
- B29B 7/7452       ...       { for mixing components by spraying them into each other; for mixing by intersecting sheets }
- B29B 7/7457       ..       { Mixing heads without moving stirrer ([B29B 7/7438](#), [B29B 7/76](#) take precedence)}
- B29B 7/7461       ..       { Combinations of dissimilar mixers }
- B29B 7/7466       ..       { Combinations of similar mixers }
- B29B 7/7471       ..       { Mixers in which the mixing takes place at the inlet of a mould, e.g. mixing chambers situated in the mould opening }
- B29B 7/7476       ..       { Systems, i.e. flow charts or diagrams; Plants }

B29B 7/748	...	{ Plants ( <a href="#">B29B 7/7433</a> , <a href="#">B29B 7/7485</a> , <a href="#">B29B 7/7495</a> take precedence)}
B29B 7/7485	...	{ with consecutive mixers, e.g. with premixing some of the components }
B29B 7/749	....	{ with stirring means for the individual components before they are mixed together }
B29B 7/7495	...	{ for mixing rubber }
B29B 7/76	..	{ Mixers } with stream-impingement mixing head
B29B 7/7605	...	{ having additional mixing arrangements ( <a href="#">B29B 7/7673</a> takes precedence)}
B29B 7/761	...	{ of gun-type, i.e. hand-held units having dispensing means ( <a href="#">B29B 7/7678</a> takes precedence)}
B29B 7/7615	...	{ characterised by arrangements for controlling, measuring or regulating, e.g. for feeding or proportioning the components }
B29B 7/7621	....	{ involving introducing a gas or another component in at least one of the components }
B29B 7/7626	....	{ using measuring chambers of piston or plunger type ( <a href="#">B29B 7/7621</a> takes precedence; for mixing in general <a href="#">B01F 15/0454</a> )}
B29B 7/7631	...	{ Parts; Accessories ( <a href="#">B29B 7/7684</a> takes precedence)}
B29B 7/7636	....	{ Construction of the feed orifices, bores, ports }
B29B 7/7642	.....	{ Adjustable feed orifices, e.g. for controlling the rate of feeding }
B29B 7/7647	....	{ Construction of the mixing conduit module or chamber part }
B29B 7/7652	....	{ Construction of the discharge orifice, opening or nozzle }
B29B 7/7657	.....	{ Adjustable discharge orifices, openings or nozzle openings, e.g. for controlling the rate of dispensing }
B29B 7/7663	...	{ the mixing head having an outlet tube with a reciprocating plunger, e.g. with the jets impinging in the tube }
B29B 7/7668	....	{ having a second tube intersecting the first one with the jets impinging in the second tube }
B29B 7/7673	....	{ having additional mixing arrangements ( <a href="#">B29B 7/7668</a> takes precedence)}
B29B 7/7678	....	{ of the gun type, i.e. hand-held units }
B29B 7/7684	....	{ Parts; Accessories }
B29B 7/7689	.....	{ Plunger constructions }
B29B 7/7694	.....	{ comprising recirculation channels; ducts formed in the plunger }
B29B 7/78	..	by gravity, e.g. falling particle mixers
B29B 7/80	.	Component parts, details or accessories; Auxiliary operations ( <a href="#">B29B 7/22</a> , <a href="#">B29B 7/58</a> take precedence, { <a href="#">cleaning mixers B01F 15/00019</a> })
B29B 7/801	..	{ Valves }
B29B 7/802	..	{ Constructions or methods for cleaning the mixing or kneading device ( <a href="#">cleaning in general B08B</a> )}
B29B 7/803	...	{ Cleaning of mixers of the gun type, stream-impingement type, mixing heads }
B29B 7/805	....	{ Cleaning of the mixing conduit, module or chamber part }
B29B 7/806	....	{ Cleaning of the discharge opening, e.g. orifice of the dispenser }
B29B 7/807	....	{ Cleaning of the central body of the plunger }
B29B 7/808	....	{ Cleaning of the plunger tip }

- B29B 7/82 .. Heating or cooling
- B29B 7/823 ... { Temperature control }
- B29B 7/826 ... { Apparatus therefor }
- B29B 7/84 .. Venting or degassing { ;Removing liquids, e.g. by evaporating components }
- B29B 7/842 ... { Removing liquids in liquid form }
- B29B 7/845 ... { Venting, degassing or removing evaporated components in devices with rotary stirrers }
- B29B 7/847 .... { Removing of gaseous components before or after mixing }
- B29B 7/86 .. for working at sub- or superatmospheric pressure {(B01F 13/06 takes precedence)}
- B29B 7/88 .. Adding charges, { i.e. additives }
- B29B 7/885 ... { with means for treating, e.g. milling, the charges } (B29B 7/905 takes precedence)]
- B29B 7/90 ... Fillers or reinforcements { e.g. fibres }
- B29B 7/905 .... { with means for pretreatment of the charges or fibres }
- B29B 7/92 .... Wood chips or wood fibres
- B29B 7/94 ... Liquid charges
- B29B 7/945 .... { involving coating particles }

## **B29B 9/00**      **Making granules** (in general [B01J](#); chemical aspects [C08J 3/12](#))

- B29B 9/02 . by dividing preformed material
- B29B 9/04 .. in the form of plates or sheets
- B29B 9/06 .. in the form of filamentary material, e.g. combined with extrusion
- B29B 9/065 ... { under-water, e.g. underwater pelletizers }
- B29B 9/08 . by agglomerating smaller particles
- B29B 9/10 . by moulding the material, i.e. treating it in the molten state
- B29B 9/12 . characterised by structure or composition
- B29B 2009/125 .. { Micropellets, microgranules, microparticles }
- B29B 9/14 .. fibre-reinforced
- B29B 9/16 . Auxiliary treatment of granules
- B29B 2009/161 .. { Absorbing, i.e. introducing a gas, a liquid or a solid material into the granules }
- B29B 2009/163 .. { Coating, i.e. applying a layer of liquid or solid material on the granule }
- B29B 2009/165 .. { Crystallizing granules }
- B29B 2009/166 .. { Deforming granules to give a special form, e.g. spheroidizing, rounding }
- B29B 2009/168 .. { Removing undesirable residual components, e.g. solvents, unreacted monomers; Degassing }

- B29B 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](#) })
- [B29B 11/02](#)      . by dividing preformed material, e.g. sheets, rods
- [B29B 11/04](#)      . by assembling preformed material
- [B29B 11/06](#)      . by moulding the material
- [B29B 11/08](#)      .. Injection moulding
- [B29B 11/10](#)      .. Extrusion moulding
- [B29B 11/12](#)      .. Compression moulding
- [B29B 11/14](#)      . characterised by structure or composition
- [B29B 11/16](#)      .. comprising fillers or reinforcement {(non-woven fabrics per se [D04H 1/00](#), [D04H 3/00](#))}
- B29B 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](#) }
- [B29B 2013/002](#)      . { Extracting undesirable residual components, e.g. solvents, unreacted monomers, from material to be moulded }
- [B29B 2013/005](#)      . { Degassing undesirable residual components, e.g. gases, unreacted monomers, from material to be moulded }
- [B29B 13/007](#)      . { Treatment of sinter powders }
- [B29B 13/02](#)      . by heating ([B29B 13/06](#), [B29B 13/08](#) take precedence)
- [B29B 13/021](#)      .. { Heat treatment of powders }
- [B29B 13/022](#)      .. { Melting the material to be shaped }
- [B29B 13/023](#)      .. { Half-products, e.g. films, plates }
- [B29B 13/024](#)      ... { Hollow bodies, e.g. tubes or profiles }
- [B29B 13/025](#)      .... { Tube ends }
- [B29B 2013/026](#)      ... { Obtaining a uniform temperature over the whole surface of films or tubes }
- [B29B 2013/027](#)      ... { Obtaining a temperature gradient over the surface of films or tubes }
- [B29B 2013/028](#)      ... { Obtaining a temperature gradient across the wall thickness of plates or tubes }
- [B29B 13/04](#)      . by cooling {(cooling moulded articles or half products [B29C 35/16](#))}
- [B29B 13/045](#)      .. { of powders or pellets }
- [B29B 13/06](#)      . by drying ([B29B 13/08](#) takes precedence; { drying moulded articles or half products [B29C 37/0092](#) })



- B29B 13/065 . . { of powder or pellets }
- B29B 13/08 . by using wave energy or particle radiation
- B29B 13/10 . by grinding, e.g. by triturating; by sieving; by filtering
- B29B 15/00** **Pretreatment of the material to be shaped, not covered by groups [B29B 7/00](#) to [B29B 13/00](#)**
- B29B 15/02 . of crude rubber, gutta-percha, or similar substances ([tapping latex A01G](#); [Chemical aspects C08C](#))
- B29B 15/023 . . { [Breaking up rubber bales](#) }
- B29B 15/026 . . { [Baling of rubber](#) }
- B29B 15/04 . . Coagulating devices
- B29B 15/06 . . Washing devices
- B29B 15/08 . of reinforcements or fillers ([chemical aspects C08J, K](#))
- B29B 15/10 . . Coating or impregnating { [independently of the moulding or shaping step](#) } ([applying liquids in general B05](#))
- NOTE**
- Where the coating or impregnating is combined with moulding the documents are classified in [B29C 53/8066](#), [B29C 70/00](#)
- B29B 15/105 . . . { of reinforcement of definite length with a matrix in solid form e.g. powder, fibre or sheet form ([calendering B29C 70/506](#)) }
- B29B 15/12 . . . of reinforcements of indefinite length
- B29B 15/122 . . . . { with a matrix in liquid form, e.g. as melt, solution or latex }
- B29B 15/125 . . . . . { by dipping }
- B29B 15/127 . . . . . { by spraying }
- B29B 15/14 . . . of filaments or wires
- B29B 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](#))**
- B29B 17/0005 . { Direct recuperation and re-use of scrap material during moulding operation, i.e. feed-back of used material }
- B29B 2017/001 . { [Pretreating the materials before recovery](#) }
- B29B 2017/0015 . . { [Washing, rinsing](#) }
- B29B 2017/0021 . . { [Dividing in large parts](#) }
- B29B 17/0026 . { [by agglomeration or compacting](#) }
- B29B 2017/0031 . . { [Melting the outer surface of compressed waste, e.g. for forming briquets by expelling the compressed waste material through a heated tool](#) }



- B29B 17/0036      ..      { of large particles, e.g. beads, granules, pellets, flakes, slices }
- B29B 17/0042      ..      { for shaping parts, e.g. multilayered parts with at least one layer containing regenerated plastic }
- B29B 17/0047      ..      { Compacting complete waste articles }
- B29B 17/0052      ....      { Hollow articles, e.g. bottles }
- B29B 2017/0057      ....      { Externally powered deformation tools, e.g. tools being part of relatively big non domestic installations, powered by motors }
- B29B 2017/0063      ....      { Manually driven deformation tools, e.g. tools being part of domestic installations }
- B29B 2017/0068      ....      { Softening the hollow articles by heat and causing permanent deformation }
- B29B 2017/0073      ....      { Removing caps or labels during deformation }
- B29B 2017/0078      ....      { Maintaining the deflated state, e.g. by mounting original screw lids after deformation }
- B29B 2017/0084      ....      { Deflating the hollow articles by vacuum; Details of the nozzles used in the vacuum generating devices. }
  
- B29B 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 }
  
- B29B 2017/0094      .      { Mobile recycling devices, e.g. devices installed in truck trailers }
  
- B29B 17/02      .      Separating plastics from other materials
- B29B 2017/0203      ..      { Separating plastics from plastics }
- B29B 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 }
  
- B29B 17/021      ...      { using local heating of the reinforcement }
- B29B 2017/0213      ..      { Specific separating techniques }
- B29B 2017/0217      ...      { Mechanical separating techniques; devices therefor }
- B29B 2017/022      ....      { Grippers, hooks, piercing needles, fingers, e.g. mounted on robots }
- B29B 2017/0224      ....      { Screens, sieves }
- B29B 2017/0227      ....      { Vibratory or shaking tables }
- B29B 2017/0231      ....      { Centrifugating, cyclones }
- B29B 2017/0234      ....      { using gravity, e.g. separating by weight differences in a wind sifter }
- B29B 2017/0237      ....      { using density difference }
- B29B 2017/0241      .....      { in gas, e.g. air flow }
- B29B 2017/0244      .....      { in liquids }
- B29B 2017/0248      ....      { Froth flotation, i.e. wherein gas bubbles are attached to suspended particles in an aerated liquid }
- B29B 2017/0251      ....      { Hydropulping for converting the material under the influence of water into a slurry, e.g. for separating laminated plastic from paper }
- B29B 2017/0255      ...      { using different melting or softening temperatures of the materials to be separated }

B29B 2017/0258	....	{ using heated surfaces for selective softening or melting of at least one plastic ingredient }
B29B 2017/0262	...	{ using electrical characteristics }
B29B 2017/0265	....	{ Electrostatic separation }
B29B 2017/0268	...	{ Separation of metals }
B29B 2017/0272	....	{ Magnetic separation }
B29B 2017/0275	...	{ using chemical sensors, e.g. analysing gasified constituents }
B29B 2017/0279	...	{ Optical identification, e.g. cameras or spectroscopy }
B29B 2017/0282	...	{ using information associated with the materials, e.g. labels on products }
B29B 2017/0286	...	{ Cleaning means used for separation }
B29B 2017/0289	....	{ Washing the materials in liquids }
B29B 2017/0293	...	{ Dissolving the materials in gases or liquids }
B29B 2017/0296	....	{ Dissolving the materials in aqueous alkaline solutions, e.g. NaOH or KOH }
B29B 17/04	.	Disintegrating plastics, { e.g. by milling } ( <a href="#">B29B 9/02</a> , <a href="#">B29B 11/02</a> , <a href="#">B29B 13/10</a> , { <a href="#">B29B 17/02</a> } take precedence)
B29B 17/0404	..	{ to powder }
B29B 17/0408	...	{ using cryogenic systems }
B29B 17/0412	..	{ to large particles, e.g. beads, granules, flakes, slices }
B29B 2017/0416	..	{ Cooling the plastics before disintegration, e.g. freezing }
B29B 2017/042	..	{ Mixing disintegrated particles or powders with other materials, e.g. with virgin materials }
B29B 2017/0424	..	{ Specific disintegrating techniques; devices therefor }
B29B 2017/0428	...	{ Jets of high pressure fluid }
B29B 2017/0432	....	{ Abrasive blasting, i.e. the jets being charged with abrasives }
B29B 2017/0436	...	{ Immersion baths }
B29B 2017/044	...	{ Knives }
B29B 2017/0444	...	{ Cutting wires, e.g. vibrating wires }
B29B 2017/0448	...	{ Cutting discs }
B29B 2017/0452	....	{ the discs containing abrasives }
B29B 2017/0456	...	{ Pressing tools with calibrated openings, e.g. in sizing plates, for disintegrating solid materials }
B29B 2017/046	...	{ Extruder as pressing tool with calibrated die openings for forming and disintegrating pasty or melted material }
B29B 2017/0464	...	{ Solid state shear extrusion pulverisation }
B29B 2017/0468	...	{ Crushing, i.e. disintegrating into small particles }
B29B 2017/0472	...	{ Balls or rollers in a container }
B29B 2017/0476	...	{ Cutting or tearing members, e.g. spiked or toothed cylinders or intermeshing rollers }
B29B 2017/048	...	{ Cutter-compactors, e.g. of the EREMA type }
B29B 2017/0484	...	{ Grinding tools, roller mills or disc mills }
B29B 2017/0488	...	{ Hammers or beaters }

B29B 2017/0492 ... { Projecting the material on stationary or moving impact surfaces or plates }  
 B29B 2017/0496 ... { Pyrolysing the materials }

**B29B 2911/00**      **Indexing scheme related to making preforms for blow-moulding bottles or the like**  
 (not used)

B29B 2911/14      . Layer configuration, geometry, dimensions or physical properties of preforms for blow-moulding bottles or the like (not used)  
 B29B 2911/14006      .. layer configuration (not used)  
 B29B 2911/14013      ... monolayered  
 B29B 2911/1402      .... at neck portion  
 B29B 2911/14026      .... at flange portion  
 B29B 2911/14033      .... at body portion  
 B29B 2911/1404      .... at bottom portion  
 B29B 2911/14046      ... multilayered  
 B29B 2911/14053      .... at neck portion  
 B29B 2911/1406      ..... partially  
 B29B 2911/14066      .... at flange portion  
 B29B 2911/14073      ..... partially  
 B29B 2911/1408      .... at body portion  
 B29B 2911/14086      ..... partially  
 B29B 2911/14093      .... at bottom portion  
 B29B 2911/141      ..... partially  
 B29B 2911/14106      .... having at least one layer  
 B29B 2911/14113      ..... having at least two layers  
 B29B 2911/1412      ..... having at least three layers  
 B29B 2911/14126      ..... having more than three layers  
 B29B 2911/14133      .... having at least one layer being injected  
 B29B 2911/1414      ..... having at least two layers being injected  
 B29B 2911/14146      ..... having at least three layers being injected  
 B29B 2911/14153      ..... having more than three layers being injected  
 B29B 2911/1416      .... having at least one layer being extruded  
 B29B 2911/14166      .... having at least two layers being extruded  
 B29B 2911/14173      ..... having at least three layers being extruded  
 B29B 2911/1418      ..... having more than three layers being extruded  
 B29B 2911/14186      .... having at least one layer being thermoformed  
 B29B 2911/14193      ..... having at least two layers being thermoformed  
 B29B 2911/142      ..... having at least three layers being thermoformed  
 B29B 2911/14206      ..... having more than three layers being thermoformed  
 B29B 2911/14213      .... having at least one layer being compression moulded  
 B29B 2911/1422      ..... having at least two layers being compression moulded

B29B 2911/14226	.....	having at least three layers being compression moulded
B29B 2911/14233	.....	having more than three layers being compression moulded
B29B 2911/1424	....	having at least one layer being applied using techniques not covered by <a href="#">B29B 2911/14133</a> to <a href="#">B29B 2911/14213</a>
B29B 2911/14246	.....	having at least two layers being applied using said techniques
B29B 2911/14253	.....	having at least three layers being applied using said techniques
B29B 2911/1426	.....	having more than three layers being applied using said techniques
B29B 2911/14266	.....	Type of said techniques not covered by <a href="#">B29B 2911/14133</a> to <a href="#">B29B 2911/14213</a>
B29B 2911/14273	.....	Spray coating
B29B 2911/1428	.....	Dip coating
B29B 2911/14286	.....	Powder coating
B29B 2911/14293	.....	Casting
B29B 2911/143	....	Interaction between at least two layers
B29B 2911/14306	.....	by welding
B29B 2911/14313	.....	by using adhesives
B29B 2911/1432	..	Geometry (not used)
B29B 2911/14326	...	Variable wall thickness
B29B 2911/14333	...	Variable diameter
B29B 2911/1434	...	Ribs or protrusions
B29B 2911/14346	...	Internal separating wall
B29B 2911/14353	...	Special shape
B29B 2911/1436	....	Special overall shape
B29B 2911/14366	.....	Conical
B29B 2911/14373	.....	Axially asymmetrical
B29B 2911/1438	.....	Elliptic or oval cross-section shape
B29B 2911/14386	.....	Rectangular cross-section shape
B29B 2911/14393	.....	Hexagonal cross-section shape
B29B 2911/144	.....	Shape allows stacking or nesting
B29B 2911/14406	....	Special shape of specific parts of preform
B29B 2911/14413	.....	Special lip, i.e. very top of preform neck
B29B 2911/1442	.....	Special neck
B29B 2911/14426	.....	Wide-mouth
B29B 2911/14433	.....	Closure retaining means
B29B 2911/1444	.....	Threads
B29B 2911/14446	.....	Interrupted threads
B29B 2911/14453	.....	Inner threads
B29B 2911/1446	.....	No threads
B29B 2911/14466	.....	Tamper-evident band retaining ring
B29B 2911/14473	.....	Special flange

B29B 2911/1448	.....	Special body
B29B 2911/14486	.....	Special bottom
B29B 2911/14493	.....	Special sprue, i.e. injection mark
B29B 2911/145	.....	Special pinch-off portion
B29B 2911/14506	...	Auxiliary parts or inserts
B29B 2911/14513	....	Handle
B29B 2911/1452	....	Closure
B29B 2911/14526	....	Transport means
B29B 2911/14533	....	Dispensing spout
B29B 2911/1454	....	Parts to assist orientation of preform, e.g. in mould
B29B 2911/14546	.....	at neck portion
B29B 2911/14553	.....	at flange portion
B29B 2911/1456	.....	at body portion
B29B 2911/14566	.....	at bottom portion
B29B 2911/14573	....	Preform, i.e. neck, flange, body and bottom, made of several individual parts
B29B 2911/1458	.....	Finish neck ring
B29B 2911/14586	..	Mentioned dimensions (not used)
B29B 2911/14593	...	Wall thickness
B29B 2911/146	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14606	....	of the neck
B29B 2911/14613	....	of the threads
B29B 2911/1462	....	of the tamper-evident band retaining ring
B29B 2911/14626	....	of the flange
B29B 2911/14633	....	of the body
B29B 2911/1464	....	of the bottom
B29B 2911/14646	....	of a layer
B29B 2911/14653	...	Diameter, D
B29B 2911/1466	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14666	....	of the neck
B29B 2911/14673	....	of the threads
B29B 2911/1468	....	of the tamper-evident band retaining ring
B29B 2911/14686	....	of the flange
B29B 2911/14693	....	of the body
B29B 2911/147	....	of the bottom
B29B 2911/14706	....	of a layer
B29B 2911/14713	...	Height, length, L
B29B 2911/1472	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14726	....	of the neck
B29B 2911/14733	....	of the threads
B29B 2911/1474	....	of the tamper-evident band retaining ring

B29B 2911/14746	....	of the flange
B29B 2911/14753	....	of the body
B29B 2911/1476	....	of the bottom
B29B 2911/14766	....	of a layer
B29B 2911/14773	...	Ratio L/D
B29B 2911/1478	...	Angle
B29B 2911/14786	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14793	....	of the neck
B29B 2911/148	....	of the threads
B29B 2911/14806	....	of the tamper-evident band retaining ring
B29B 2911/14813	....	of the flange
B29B 2911/1482	....	of the body
B29B 2911/14826	....	of the bottom
B29B 2911/14833	....	of a layer
B29B 2911/1484	...	Curvature, e.g. radius
B29B 2911/14846	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14853	....	of the neck
B29B 2911/1486	....	of the threads
B29B 2911/14866	....	of the tamper-evident band retaining ring
B29B 2911/14873	....	of the flange
B29B 2911/1488	....	of the body
B29B 2911/14886	....	of the bottom
B29B 2911/14893	....	of a layer
B29B 2911/149	..	Mentioned values not covered by <a href="#">B29B 2911/14586</a>
B29B 2911/14906	...	Crystallinity
B29B 2911/14913	....	at the neck portion
B29B 2911/1492	....	at the flange portion
B29B 2911/14926	....	at the body portion
B29B 2911/14933	....	at the bottom portion
B29B 2911/1494	...	Surface roughness
B29B 2911/14946	....	at the neck portion
B29B 2911/14953	....	at the flange portion
B29B 2911/1496	....	at the body portion
B29B 2911/14966	....	at the bottom portion
B29B 2911/14973	...	Optical properties
B29B 2911/1498	...	Weight
B29B 2911/14986	...	Composition
B29B 2911/14993	....	Recycled material