

BOARDS & PASTES QUICK SETTING PU PU ELASTOMERS

RAPID PROTOTYPING EPOXY SYSTEMS

PARIS FRANKFURT LONDON MILANO BARCELONA BRATISLAVA SHANGHAI NAGOYA DUBAI PUNE DETROIT MEXICO CITY

# DESIGN MODELLING TOOLING



ISO 9001



ISO 14001





# GLOBAL OFFER

## About Axson

AXSON, a world leader in high performance polymer formulation, is bringing together BS Coatings, Revocoat and Axson Technologies.

AXSON specialises in innovative solutions for design, creation, assembly and protection in industrial transport, energy, water, sports and leisure, construction and infrastructure markets.

Created in 2011, AXSON has over 950 employees in France and the world (Europe, Asia, the Americas, the Middle East, India and Africa) and counts 25 subsidiaries, 16 production and R&D sites as well as a network of retailers throughout the world.

Axson Technologies specialises in the formulation of polymers for design, prototyping and tooling, structural adhesives, composite materials and encapsulation products for the automotive, aeronautical, nautical, renewable energy, sports & leisure and construction markets.

## Worldwide marketing and sourcing

AXSON Technologies, with a fast growing number of customers around the world is an exceptional organization to follow the newest technologies available on all continents.

Each newest technology related to high-performance epoxies and polyurethanes appearing in any part of the world will be developed and transferred to all our customer base (except in case of non-disclosure agreements).

AXSON Technologies, thanks to its important customer base is a formidable accelerator of technology in most industrial fields such as aerospace, wind industry, marine applications, composite applications...

## Experience

With 70 years of expertise by formulating Epoxy and Polyurethane, Axson has introduced many new products such as fast setting resins, modelling and tooling boards, low temperature prepregs, high and low density foams now used in modelling workshops as well as in most design offices.

These innovations have made modelling and rapid prototyping available to all industries everywhere.

## Innovation

Our aim is to offer you the best high technology materials for each of your applications.

Axson dedicates a considerable part of its work to research and development of tomorrow's technology.

Additionally Axson develops custom designed solution from common established specification lists.

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## Local Technical & web assistance

Axson global and local technical support by skilled and trained staff are roots of our success.

You can use our Internet network as a complement to:

- Download catalogues and brochures
- Get on line technical assistance
- Contact us worldwide
- Get technical TDS and SDS
- Read News at Axson
- Exhibition and events

**www.axson.com**

## Systems & Equipment

We can offer and/or recommend you global solutions for handling our products that are specially adapted to your requirements to optimise the implementation and effectiveness of your production processes such as:

- Rapid prototyping and vacuum casting machines
- Reaction Injection Moulding equipment
- Paste extrusion machines
- Dosing and metering equipments

## Quality & Environment

Environmental impact is becoming an increasingly important issue across the world.

Axson Technologies has been certified ISO 9001 since 1991.

For a long time, AXSON Technologies has anticipated the regulation and daily applied its will to reduce the environmental impacts. We are ISO 14001 certified and Reach compliant.



ISO 9001



ISO 14001

## Health & Safety

**Our customers deserve the best:**

We are continuously developing products that are more efficient, faster, and more reliable which enable users to work in optimum health and safety conditions.

We already decided to avoid and limit the use of harmful constituents.



# MACHINABLE PRODUCTS

## MACHINABLE BOARDS

### STYLING

References	Description	Colour	Applications	Density	Compressive Strength MPa	CTE 10-6.K-1	Advised temp.	Fire Classification	Glue repair paste	Dimensions (mm)*
<b>LABELITE 160</b>	Rigid PU foam boards suitable for NC or manual machining.		Prototypes, larges dimension models, tool-path testing, volumetric models, prototype vacuum forming tools, painted embossed signs, preshape forms for extrudable paste, works of art (sculptures).	.16	1.90	70	120°C	M4	F16 F19 EASYMAX A77P	2500/1000 or 1250 x 500 x thickness: 50/100/150 /200
<b>LABELITE 220</b>	Good temperature resistance.			.22	2.95	70	120°C	M4		
<b>LABELITE 320</b>	Chemical resistance to solvents.			.32	5.75	70	120°C	M4		

\* certain dimensions may be subject to modification. Other dimensions, please contact us.

### MODELLING

References	Description	Colour	Applications	Density	CTE	Hardness (shore)	Tg (°C)	Glue, repair paste	Dimensions (mm)
<b>PROLAB 45</b>	Low density board designed for the rapid machining of parts by milling or by manual carving. Compact, non foamed slab.		Prototypes. Cubing. CNC path validation.	.45	75	47D	70	F16, F19 PROCOL 2 EASYMAX	1500 x 500 x thickness: 30/50/75/100/150
<b>PROLAB 65</b>	NC machinable board. Good surface finish. Good dimensional stability. Temperature resistant. Compatible with all types of paint.		Models for the automotive industry. Prototype vacuum forming moulds Foundry models. Models for composite moulds.	.65	75	63D	85	F16, F19 PROCOL 2 A77/P EASYMAX	1500 x 500 x thickness: 30/50/75/100/200
<b>PROLAB 75</b>	High dimensionnall stability. Temperature and abrasion resistance.		Checking fixtures for prototypes. Vacuum forming moulds for prototypes. Foundry tools for short series. Models for laminated moulds.	.75	50	73D	85	PROCOL 2 A77/P	1500 x 500 x thickness: 50/75/100

### TOOLING

References	Description	Colour	Applications	Density	CTE	Hardness (shore)	Tg (°C)	Glue, repair paste	Dimensions (mm)
<b>LAB 850</b>	Resistant to abrasion. Non filled. Thermoplastic finish. Good edge strength during machining.		Foundry patterns for producing up to 150,000 castings. Core boxes. Stamping blocks for manually forming sheet metal.	1.18	95	80D	80	H 9951	1000 x 500 x thickness: 50/75/100
<b>LAB 920</b>	Very good abrasion resistance. Thermoplastic finish. Easy to machine.		Foundry patterns for producing up to 50,000 castings. Machined patterns for presentation.	1.30	85	85D	90	H 9951	1000 x 500 x thickness: 50/75/100
<b>LAB 1000</b>	High density. Aluminium filled. High compression resistance. High dimensional stability. Good heat exchange coefficient.		Stamping tools. Inspection tools. Dolly blocks. Vacuum forming moulds.	1.67	50	89D	92	H9951 or GC1 125	830 x 500 x thickness: 50/100
<b>LAB 1001</b>	Compression resistant. High dimensional stability. Good surface quality. Can be sanded using water paper and polished using polishing paste. Easy tracing on white surfaces. Non abrasive.		Forming and drawing tools. Inspection tools for large-scale production. Moulds for low pressure injection. Vacuum forming moulds.	1.60	45	90D	100	H 9951 or GC1 050/ GC 10	830 x 500 x thickness: 50/100

### COMPOSITES TOOLS

References	Description	Colour	Applications	Density	CTE	Hardness (shore)	Tg (°C)	Glue, repair paste	Dimensions (mm)
<b>LAB 975</b>	Low density epoxy board. High dimensional stability. Very good surface finish. Good temperature and pressure resistance.		Patterns for prepreg moulds. Direct moulds for laminates or preregs. Usable in autoclaves up to 115°C and under 4 bars.	.70	40	75D	115	H8973	1500 x 500 x thickness: 50/100
<b>LAB 973</b>	Low density epoxy board. Good dimensional stability. Good surface finish. Good temperature resistance.		Patterns for prepreg moulds. Direct moulds for laminates or preregs. Usable in autoclaves. Vacuum forming moulds. Inspection tools.	.75	45	73D	115	H8973	1500 x 500 x thickness: 50/100
<b>LAB 970</b>	Low density epoxy board. High dimensional stability. Easy to machine.		Patterns and direct moulds for low temperature preregs. Curing at 80°C, 4 bars in an autoclave.	.68	40	73D	80	H8970	1500 x 500 x thickness: 50/100



## EXTRUDABLE PASTES (MACHINE)

References	Description	Colour	Applications	Mixing ratio	Density	CTE	T <sub>g</sub> (°C)*	Hardness (shore)	Mastic, adhesive
<b>SC 175</b>	SC 175 has been designed for marine, wind energy and automotive customers looking for a fast and reliable way to manufacture tools.		Large models/plugs making.	100/50	.63	68	83	53D	A 77/P APF 7 SC 175
<b>SC 380</b>	Good compromise hardness/density/thermal resistance. Good behaviour on vertical support up to 30 mm.		Large dimension tools/composite tooling and mocks-up production by extrusion process. Master Plugs.	100/100	.82	60	50	65D	APF 7 SC 380
<b>SC 390</b>	Easy to handle extrudable paste with high thermal resistance for large-sized models, mock-ups, parts and tools in the sectors of wind turbines, shipbuilding, aircraft and automobile industry and for composites industry.		Master model & tool making for large dimension moulds processed by infusion or prepreg low temperature.	100/100	1.06	53	90	75D	APF 7 SC 390

\* see TDS , consult us for the post-cure

## MODELLING PASTES (MANUAL)

References	Description	Colour	Applications	Maximum layer thickness	Mixing ratio	Density	CTE	T <sub>g</sub> (°C)	Hardness (shore)	Time before machining
<b>SC 258</b>	Low density epoxy paste. Manual or mechanical mixing. Machining with conventional woodworking tools or by NC machining.		Prototypes, over-modelling, inspection masters, patterns. Restauration of old wood, creation of figurines and statues.	40 mm	100/100	.53	46	53	55D	16h

## REPAIR MATERIALS FOR MACHINABLE PRODUCTS

### PUTTIES

References	Description	Colour	Applications	Mixing ratio	Density	Hardness (shore)	Pot Life (mn)
<b>EASYMAX</b>	Quick setting, low density polyurethane putty. Bi-components in 50 cc and 400 cc pots or cartridges.		Repair, touch-up or assembly of low density machinable boards. Filling of gaps and surface imperfections in all types of materials.	100/100	.68	57D	3.3
This 3 putties could be applied on full cured paste for surface modifications							
<b>M 175</b> <b>M380</b> <b>M390</b>	Quick setting epoxy putty.		Epoxy repair mastic. Quick repair and surfacing of extrudable pastes. Same aspect than modelling pastes. Machinable after 4 hours. SC 175, SC 380, SC 390 repair modelling/shaping/backing.	100/100	.66	56D	15
<b>APF 7</b>	Quick setting polyester putty styrene free. High temperature resistance 180°C.		Composites mould repair, plug repair.	100/ 2 to 5	1.69	89D	4-7
<b>A 77/P</b>	Low density, quick setting polyester putty for standard uses. Low CTE. Low exothermal. Machinable in 20 minutes.		Quick touch-ups for models and prototypes made from extrudable pastes and by casting. Filling gaps.	100/ 1 to 6	1	55D	4

### ADHESIVES

References	Description	Colour	Mixing ratio	Open time (min)	Viscosity (Pa.s)	Time to reach 1MPa in Lap Shear	Hardness (shore)	Lap Shear Strength (MPa)	Elongation at break %
<b>PROCOL 2</b>	Low density, thixotropic epoxy adhesive. Bonding Prolab type boards.		100/40	50	pasty	4h30	58D	NC	NC
<b>H 8973</b>	Thixotropic epoxy adhesive.		100/15	30	pasty	4h30	75D	NC	NC
<b>H 9951</b>	Epoxy adhesive.	translucent pink	100/62	50	22	6h	75D	29	10
<b>A 299</b>	Ultra fast Pu adhesive. Multipurpose.		100/100	40 s	pasty	1 min30	60D	14	25-30

# RAPID PROTOTYPING

## VACUUM CASTING POLYURETHANE RESINS

MERCURY  
FREE

MERCURY  
FREE

MERCURY  
FREE

MERCURY  
FREE

References	Description	Colour	Applications	Mixing ratio	Flexural modulus (MPa)	T <sub>g</sub> (°C) <sup>(1)</sup>	Pot life (min)	Hardness (shore)
<b>TRANSPARENT SYSTEM</b>								
PX 5212	Low viscosity. High temperature resistance. Maximum advisable thickness: 10 mm. UV and weather resistant	transparent	Similar to PMMA. Technical prototypes, lenses for headlights, traffic lights, light tubes, transparent covers, etc.	100/50	2400	95	8	85D
PX 5211	Can be cast with or without vacuum casting machine in 50 mm thickness. UV stable and easy to polish. High reproduction accuracy.	transparent	Similar to PMMA. Prototypes for the glass, art and decoration sectors. Solid parts.	100/60	2000	90	15	85D
PX 225 / PX 225L	Low viscosity for easy casting. Good impact and flexural resistance. Very easy coloring with all kind of pigments (no water base) like Axson CP range.	transparent	Thermoplastic like parts (prototypes and mock-up) with a flexural modulus of elasticity close to 2.500 Mpa (ex: polycarbonate, ABS).	100/75	2500	80	4 to 5 7 to 8	80D
<b>FLEXIBLE</b>								
UPX 8400	3 components system with adjustable hardness. Pigmentable. Easy to process and pigment. Outstanding strength, low aggressiveness to silicone moulds. Dedicated to achieve rubber like prototype parts for all sectors of activities.	off white	Use in vacuum casting machine. Silicone mould for the production of flexible prototypes parts of small series requiring rubber aspect.	variable	450 to 750	80	9 to 15	From 30A to 95A
<b>SPECIFIC, TECHNICAL PLASTICS</b>								
PX 234 HT	Very high temperature resistance. Easy to cast. Good impact resistance. Really low viscosity, short demoulding time in 3 mm thickness. Even after final post curing, it retains a nice flexibility.	light amber	Similar to PPS. PEEK. For all parts that have to withstand high temperatures, parts for engine compartments or household appliances.	100/50	1850	220	5	80D
PX 330	Conforms to FAR 25 (fire resistance) standard. Easy to use. Compliance ROHS.	white	Technical parts for the aeronautical industry. All parts requiring a fire-resistance rating.	100/100	3400	100	5	87D
<b>HDPE - PP type</b>								
PX 205	Unbreakable "hinge effect". Excellent abrasion resistance. Does not attack silicon moulds.	cream	Similar to PEHD and PP. For all parts with an integrated hinge, pinions, guide rails, rollers, limit stops.	100/50	500	90	13	70D
PX 212	Low viscosity. Reduced demoulding time. Good impact resistance, can be pigmented in all colours. Good heat resistance.	translucid	PP-aspect prototype parts. Good heat resistance. Automobile interior trim, covers for household appliances.	100/100	1200	90	5	76D
<b>ABS – HIPS – FILLED PP TYPE</b>								
PX 1000	Low viscosity. Manual application possible. Long pot life.	white	HIPS-aspect prototype parts. Large dimensions possible with or without vacuum casting machines.	100/100	1600	75	15 to 20	74D
PX 2017 HT	Low viscosity for easy casting, Short demoulding time, and low aggressiveness on silicon moulds. According to its exceptional compatibility with silicone moulds, it's possible to achieve easily 50 castings in a mould without deterioration.		Used by casting in silicone moulds for the production of prototype parts and mock-ups whose mechanical properties are close to ABS or filled PP.	100/80	1600	>130	6	80D
PX 220	Very good impact resistance, even at very low thicknesses. Very plastic behaviour.	white	Similar to PS Choc. For all very thin parts requiring good impact resistance.	100/50	2000	90	5	80D
PX 223 HT	Low viscosity. Good impact resistance. High temperature resistance. Does not attack silicone moulds. Resistant to hydrocarbons. Temperature stability up to 110°C after appropriate post curing.		ABS-like prototype parts for small vacuum moulding production runs.	100/80	2300	>120	7	80D
PX 226 / PX 226L	Low viscosity. PX 226 suitable for casting large parts. Long pot life. Very short demoulding time.	white	Similar to ABS/ABS filled/PA.6. Technical parts, electro-technical parts, such as bases for relays, sockets and switches.	100/50	2500	105	4 8	82D
PX 245 / PX245L * * pot life 8 mn	Filled. Very short demoulding time. Very rigid. Good abrasion resistance.	off white	Similar to P.O.M. and filled thermoplastics. For all parts requiring high stiffness in flexure.	100/40	4500	95	4 8	85D

Pigments for PX range: CP range with 6 colours (white, black, blue, yellow, green, red).



# RIM POLYURETHANE RESINS

## LOW PRESSURE RIM INJECTION PU RESINS - COMBINABLE SYSTEMS

References	Description	Colour	Applications	Mixing ratio	Flexural modulus (MPa)	Tg (°C)	Pot life (seconds)	Hardness (shore)
<b>RIM 875 NR (black)</b> <b>RIM 875 BE (beige)</b>	High impact resistance. Polyol resin can be added to obtain intermediary stiffnesses.		PP/PE-appearance prototype parts, small production runs in the transport industry: tractors, trucks, buses. Special machines.	100/80	1000	100	60-80	75D
<b>RIM 872</b>	Intermediate between RIM 875 and 876. Intermediary stiffness, ready to use.		Prototype parts for automobiles.	100/90	1400	100	60-80	78D
<b>RIM 876 NR (black)</b> <b>RIM 876 BE (beige)</b>	High impact resistance. Polyol resin can be added to obtain intermediary stiffnesses.		ABS-appearance prototype parts.	100/100	2000	100	60-70	80D
<b>RIM 972</b>	High temperature resistance after post curing. Parts close to engine compartments.		PP like resin for prototypes or short production runs.	100/86	1500	150	38-42	77D

## LOW PRESSURE RIM INJECTION PU RESINS - RIM SPECIFIC

References	Description	Colour	Applications	Mixing ratio	Flexural modulus (MPa)	Tg (°C)	Pot life (seconds)	Hardness (shore)
<b>RIM 631</b>	Flexible, rapid setting product. Rubber aspect. Weather resistant.		Flexible parts. Seals. Overmoulding of glass panes for peripheral seals.	100/100		–	50-70	73A
<b>RIM 826/</b> <b>RIM 902</b>	Very high impact resistance. Easy to use in low pressure machines.		Prototype parts requiring high impact resistance: automobile face panels, cowlings and interior panels.	100/100	800	95	80-100	73D
<b>RIM 832GY/</b> <b>RIM 974</b>	Hardening specifically adapted to the rotomoulding process. Very easy to use. High temperature resistance. Rapid demoulding. Good impact resistance. Can be painted.		Rotomoulded parts, in resin or metal moulds, requiring similar mechanical properties to polystyrene- or ABS-type thermoplastics.	100/60	1200	110	120-145	79D
<b>RIM 836/</b> <b>RIM 974</b>	Semi rigid system dedicated to large parts. Could be used with rotational technique. Impact resistant. Mixing by hand or with a 2K machine.		Hollow decorative parts, impact resistant massive parts. Rotomoulded or cast.	100/60	850	95	9-11	75D
<b>RIM 624</b>	Rigid product. Very fluid. Very easy to mould in machines.		Prototypes, small production runs (automobile, office equipment, electronics, household appliances).	100/100	1600	115	60-70	75D
<b>RIM 610</b>	UL 94V0 approved: self-extinguishing.		Covers, electrical boxes, computer housings, medical, consoles, ticket machines.	100/100	2100	105	50-70	80D

# POLYADDITION SILICONE RUBBERS

References	Description	Colour	Applications	Time before demoulding at 40°C	Mixing ratio	Viscosity (mPa.s.)	Pot life	Hardness (shore)
<b>ESSIL 291/291</b>	Standard.	transparent	Self demoulding, flexible moulds for rapid prototyping.	10h	100/10	40 000	60'	38A
<b>ESSIL 291/292</b>	Transparent, oiled.			10h	100/10	40 000	60'	38A
<b>SVB 20 /</b> <b>SVB 20 SC</b>	Two-component silicone sprayable. Low viscosity, easy to spray. Re-usable. Short demoulding time (normal version). Two version available (normal and slow curing)		SVB 20 is specifically developed to produce a silicone bag on moulds used for the processing of composites applying the "vacuum resin infusion" technology.	Depends on catalyst used	100/100	15 000	3' 60'	20A

# POLYCONDENSATION SILICONE RUBBERS

References	Description	Colour	Applications	Time before demoulding at 23°C	Mixing ratio	Viscosity (mPa.s.)	Pot life	Hardness (shore)
<b>ESSIL 112</b>	Low hardness polycondensation silicone. Used with catalyst ESSIL 124 or ESSIL 125 according to pot life.	white	Soft moulds for stucco, plaster or PU resins when easy demoulding is required.	Depends on catalyst used	100/5	28 000	25'/ 90'	12A
<b>ESSIL 125/125</b>	Polycondensation silicone.	white	Flexible, self-demoulding moulds for all types of moulding.	36	100/5	40 000	240'	24A
<b>ESSIL 125/124</b>	Polycondensation silicone for rapid demoulding.			16	100/5	40 000	90'	25A



# CASTING RESINS

## POLYURETHANE ELASTOMERS

References	Description	Colour	Applications	Mixing ratio	Pot life (min)	Hardness (shore)	Elongation %	Setting time
<b>Versatil and diverse systems</b>								
<b>UR 3420</b>	High tensile strength. Water resistant. Low viscosity.	amber	Seals. Reverse relief moulds. Flexible negatives.	100/40	23	50A	950	12h
<b>UR 3440</b>	High tear resistance. Low toxicity. Water resistant.	amber	Seals. Reverse relief moulds. Negatives.	100/50	17	63A	1000	24h
<b>UR 3450</b>	Good abrasion resistance. High tear resistance. Good resistance to hydrolysis.		Flexible moulds. Forming tools. Prototype parts.	100/35	20	80A	620	24h
<b>UR 3460</b>	Good abrasion resistance. High chemical resistance. Good resistance to hydrolysis.		Flexible moulds. Forming tools. Concrete moulds.	100/40	20	85A	810	24h
<b>UR 3468</b>	Good abrasion resistance. Excellent tear resistance.		Sand-blasting masks. Parts that are subject to wear.	100/25	15	89A	900	24h
<b>UR 3490</b>	Reduced toxicity. Excellent impact resistance. Rapid hardening.		Production of foundry moulds (models, core boxes) on aluminium, concrete, resin preforms, etc.	100/50	14	67D	120	16h
<b>High mechanical properties</b>								
<b>UR 3546</b>	Good tear and abrasion resistance.	amber	Technical parts.	100/26	35	75A	600	24h
<b>UR 3558</b>	Good impact, tear and abrasion resistance. Rapid demoulding.	amber	Core boxes for foundries. Protection parts.	100/42	25	95A	460	8h
<b>UR 3569</b>	Without MDA. High abrasion resistance. Unbreakable.		Patterns and core boxes for foundries.	100/40	20	68D	160	16h
<b>Improved chemical resistance</b>								
<b>UR 58300</b>	Two-component liquid PU, solvent free, "F" version with short pot life. Pot life available 12 or 20 mn.		PU elastomer designed to make moulds for concrete industry by hand casting or with a 2k machine.	10/100	20*	30A	900	16h
<b>UR 58480</b>	Soft elastomer with high chemical resistance. Low viscosity. 2 pot life available.		Concrete moulds for production (standard datas).	100/30	20	50A	850	16h*
<b>UR 58630</b>	High resistance to concrete release agents. Low resilience. 3 pot life available. Can be mixed by hand or with a 2K machine.		Concrete and plaster moulds for production (standard datas).	35/100	20*	63A	850	16h*
<b>UR 58720</b>	Medium hardness elastomer for moulds or parts. High tear strength.		Moulds for large-scale production of concrete parts.	30/100	20	70A	600	12h
<b>UR 5895</b>	Good resistance to chemical solvents. Excellent tear resistance. Easy to use.	orange, blue, green, yellow, beige, white	Moulding parts for the building industry. Magnetic blocks. Strike-off slabs. Sections.	55/100	1 10	Machine 95A Hand 95A	400	10' 12h
<b>UR 5898</b>	Semi-rigid, quick setting elastomer. Can be coloured.		Production of semi-rigid parts in low-pressure machines.	65/100	1	65D	110	5'
<b>Environmental friendly</b>								
<b>UR 7840</b>	No filled system, hydrolysis resistance.	amber	Moulds and parts for industry.	100/100	650	45A	20	16h
<b>UR 7855</b>	Soft system with high dimensional stability. Almost no shrinkage. Could be sanded.		Case moulds for ceramic industry.	100/50	30	55A	1100	36h

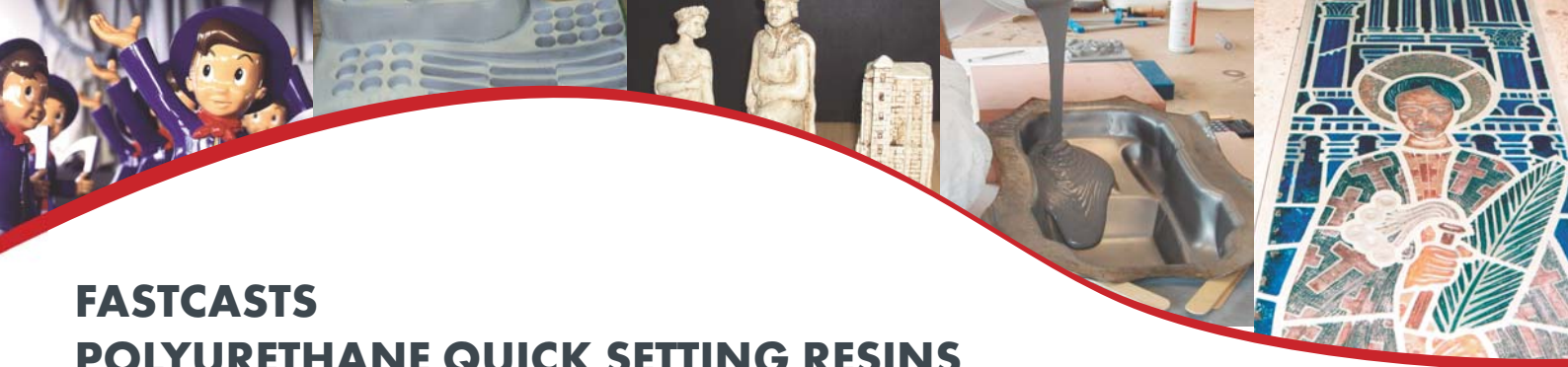
\* Long pot life version

## TRANSPARENT RESINS

References	Description	Applications	Mixing ratio	Pot life	Time before demoulding	Viscosity (mPa.s)	Tg (°C)*
<b>TRANSLUX D 150</b>	Transparent epoxy resin system. Variable pot life. Variable hardness. Easy to use. Variable mixing ratio (see technical data sheet).	Floral decoration, imitation of liquids in different containers, simulation of rivers or lakes in scale models.	100/100	70' to 9h	Variable depending on mixing ratio	250 400	NC NC
<b>TRANSLUX D 154</b>	Transparent epoxy resin. UV stable, easy self leveling, scratch resistant.	Clear coating surfaces on every back up.	100/84	40'	10h (in 30mm)	2600	45
<b>TRANSLUX A 180</b>	Transparent epoxy resin. Adjustable reactivity according to the thickness. Heat resistance.	Production of model, moulds or transparent parts.	100/45	3 to 9h	Variable depending on mixing ratio	640	65

\* after appropriate heat treatment (see technical data sheets)





# FASTCASTS

## POLYURETHANE QUICK SETTING RESINS

### PRE FILLED

References	Description	Colour	Applications	Mixing ratio	Pot life (mn)	Time before demoulding	Viscosity (mPa.s)	Tg (°c) *
F1	Low shrinkage, even when very thick (constant shrinkage). Fine grain.		Thickness: up to 50 mm. Foundry patterns, negatives, vacuum forming tools. Painted or gilded decorative items.	100/100	5'	25' - 45'	1700	90
F15	Long pot life version of F1.		Thickness: up to 70 mm. Foundry patterns. Negatives, vacuum forming moulds, machining tools.	100/100	8'	2h - 2h30	1500	85
F23	Excellent surface finish. Easy to sand. Gloss recovery. Polishable.	white	Vacuum forming tools, negative moulding for checking mould dimensions, figurines, decorative objects.	100/20	5'	30' - 45'	1750	90
F40	Excellent abrasion resistance, low shrinkage, low viscosity. Rapid demoulding and use of moulds.		Core boxes, foundry patterns, pattern plates, reproduction patterns.	100/20	6'	40' - 45'	250	85

### REFILLABLE

References	Description	Colour	Applications	Mixing ratio	Pot life (min)	Time before demoulding	Viscosity (mPa.s)	Tg (°c) *
F16	Rapid demoulding. Low viscosity. Good temperature resistance after heat curing.		Negatives, patterns, models (filled with RZ 30150). Vacuum forming moulds (filled with RZ 209/6).	100/100	2'30"	30'	80	100
F18	Good impact resistance, low shrinkage, low viscosity, versatile system.			100/100	3'30"	45'	60	80
F19	Very low shrinkage. Low viscosity. Long pot life.			100/100	7'	90'	78	100

### NON REFILLABLE

References	Description	Colour	Applications	Shear modulus (Mpa)	Mixing ratio	Pot life (min)	Time before demoulding (2mm)	Viscosity (mPa.s)	Tg (°c) *
F31	Rapid demoulding. Good substrate for painting. Compatible with electro-plating.		Patterns, models. Prototyping up to 5 mm thickness. Scale models, toys.	1100	100/100	2'	> 20'	40	95
F32	More fluid and odourless version of F31. Easy demoulding: possible to cast fragile parts without risking breakage.			1100	100/100	2'	> 20'	35	100
F33	Easy demoulding: possible to cast fragile parts without risking breakage. Good impact resistance.			860	100/100	2'	> 30'	28	100
F38	Excellent impact resistance. Low viscosity. Thermoplastic-type finish. Good substrate for painting.	off white	Production of models and prototypes, large scale production in the scale-model industry. Extremely detailed parts.	750	100/100	2'	25'	35	55

## EPOXY CASTING RESINS

References	Description	Colour	Applications	Density	Mixing ratio	Pot life (min)	Hardness (Shore)	Viscosity (mPa.s)	Tg (°c) *
EPO 5019	Medium viscosity. Long pot life. Highly resistant to abrasion and compression.		Foundry patterns Stamping dies and punches. Reproduction patterns. Mould masters. Machine setting.	2.30	100/10	100'	90D	25000	74
EPO 5019/95B	Rapid version of EPO 5019 for surface casting. Low viscosity. Compression resistant.			2.40	100/6	50'	90D	5500	80
EPO 5030	Low shrinkage. High hardness. Excellent abrasion resistance.		Foundry core boxes and patterns. Positioning jigs. Reproduction models.	1.80	100/10	50'	90D	5500	70
EPO 4042 F EPO 4042 L	Variable reactivity epoxy system (choice of 2 hardeners). Very good surface finish after machining. Aluminium filler. Low shrinkage.		PU foam vacuum forming and injection moulds. RIM moulds.	1.71	100/6 100/7	140' 220'	88D	13000 17000	80
EPO 4030	Technical resin with aluminium filler. No post-cure heat treatment.		Vacuum forming moulds. Low-pressure RIM injection moulds.	1.65	100/10	160'	85D	12000	115
EPO 752/ 2080	Very good mechanical characteristics. Heat resistant.		Vacuum forming moulds. Thermoplastic injection.	1.74	100/16	360'	90D	15000	195

\* after appropriate heat treatment (see technical data sheets)



# LAMINATING RESINS

## LAMINATING PASTES

### EPOCAST

References	Description	Colour	Applications	Mixing ratio	Tg (°C)	Pot life (min)	Density
<b>EPOCAST 206</b>	Temperature resistant laminating paste. High dimensional stability.		Large negatives. Moulds for composite parts. Vacuum forming moulds.	100/12	125	75 - 95	.92
<b>EPOCAST 400</b>	Standard laminating paste. Very easy to mix. Very low shrinkage.		Foundry negatives. Inspection tools. Trimming tools. Moulds for the ceramics industry.	100/14	70	70-90	.90
<b>EPOCAST 402</b>	Low density laminating paste. Very easy to mix. Very low shrinkage.		Light duplicate mouldings. Large tools. Inspection tools. Moulds for the ceramic industry.	100/14	70	120	.76

### GELCOAT

Kit References	Description	Colour	Applications	Mixing ratio	Hardener	Tg (°C) *	Pot life (min)	Hardness (shore)	Density
<b>GC1 050</b>	Gelcoat with good corner strength. Good covering power. Easy to sand and good glossing characteristics.	white	Negatives, large patterns.	100/10	GC 10	50	20	83D	1.45
<b>GC1 080</b>	High resistance to chemicals. Easy to apply.		Surface layer for ceramic mould tools. RTM polyester resin injection moulds.	100/10	GC 13	85	20	89D	1.74
<b>GC1 125</b>	Good thermal conductivity. Aluminium aspect.		Thermoforming tools, foam moulds, RIM moulds.	100/13	GC 15	130	32	87D	1.50
<b>GC1 150</b>	High resistance to chemicals. Very good glossing characteristics.		Polyester and epoxy RTM injection. Polyurethane foam RIM injection.	100/20	GC 15	130	27	87D	1.25
<b>GC1 130</b>	Long pot life, sandable & polishable.		Used for high temperature resistance and/or large size tooling applications such as moulds surface for infusion, prepregs, RTM, SMC, thermoforming, etc.	100/16	GC 23	130	55	88D	1.27
<b>GC1 160</b>	Long pot life, sandable & polishable.		Used for high temperature resistance and/or large size tooling applications such as moulds surface for infusion, prepregs, RTM, SMC, thermoforming, etc.	100/16	GC 16	160	90	90D	1.32

Kit References	Description	Colour	Applications	Mixing ratio	Hardener	Tg (°C) *	Pot life (min)	Hardness (shore)	Density
<b>GC2 070</b>	Abrasion resistant epoxy gelcoat.		Foundry and reproduction patterns. Core boxes.	100/10	GC10	85	20	88D	1.59
<b>GC2 120</b>	Filled, abrasion resistant epoxy gelcoat. Resistant to temperatures up to 120°C.		Foundry tools. Low pressure SMC. Moulds for polyester RTM/Epoxy.	100/15	GC 12	120	18	89D	1.48

Kit References	Description	Colour	Applications	Mixing ratio	Hardener	Tg (°C) *	Pot life (min)	Hardness (shore)	Density
<b>GC3 090</b>	Semi-rigid, good abrasion resistance. Polyurethane based.		Foundry tools. Core boxes.	100/80	GC3 090	90	17	65 D	1.15
<b>Sprayable Gelcoat</b>									
<b>APG 1750 S</b>	Styrene-free polyester gelcoat compatible with epoxy systems EPOLAM 2050 and EPOLAM 2025.		Sprayable gelcoat for composite moulds requiring high heat resistance and mirror glossy surface.	100/2	MEKP	200	22	87D	1.30

\* after appropriate heat treatment (see technical data sheets).



## EPOXY LAMINATING RESINS

### TOOLING

References Hardener	Description	Colour	Applications	Mixing ratio	Tg (°C) *	Pot life (min)	Viscosity (mPa.s)
<b>EPOLAM 2010/ 2010 2011 2012</b>	Versatile epoxy system with a single resin and choice of 3 hardeners. Variable curing time, no foaming.		Composite moulds and parts. Can be used as a gelcoat, on casting resins or concrete, with additional fillers.	100/50	50	30-35	1000
				100/50	50	60-70	900
				100/50	55	2h-2h30	800
<b>EPOLAM 2001/ 95B 95S</b>	Multi-functional, low viscosity epoxy system. Variable reactivity (choice of 2 hardeners).		EPOLAM 2001 can be used to mould parts that require moulds with a degree of flexibility and impact strength.	100/17	50	70	400
				100/32	55	40	600
<b>EPOLAM 2002</b>	Epoxy system for moulds. Low odour. Dimensional stability.		For producing concretes and laminates in the ceramics industry.	100/12	65	55	950
<b>EPOLAM 2025</b>	Good mechanical properties. Can be used for moulds up to 135°C after curing.		Moulds with good temperature resistance by wet lay-up.	100/28	135	1h10	1400
<b>EPOLAM 2050</b>	Temperature resistant. Good wettability.		Composite moulds. Concrete or casting.	100/32	125	60	2000
<b>Infusion resins</b>							
<b>EPOLAM 2019</b>	Low viscosity. High thermal resistance. High thickness resistance.		Infusion resin for mould. No pre cure needed.	100/35	110	95	250
<b>EPOLAM 2035/2025</b>	Low viscosity systems for producing moulds by infusion.		Infusion resin for producing moulds for prepreg fabrics and RTM processes.	100/27	130	105	400
<b>EPOLAM 2031/ 2031 2032</b>	Excellent impregnation of fabrics with adjustable reactivity of system between 2 hardeners compatible with each other.		Composites moulds with continuous service temperature up to 120°C.	100/26	140	110	350
					145	200	550
<b>EPOLAM 2070</b>	Low viscosity system. Good wetting abilities.		Composites tools, infusion and lay up.	100/31	160	180	500
<b>EPOLAM 2092</b>	High temperature resistance. Excellent wettability.		Composite structures. Moulds for prepreps. RTM. Vacuum forming moulds.	100/53	215	2h30	650

### PARTS

<b>RSF 816</b>	Low viscosity. Brush application in thin coats. Variable pot life through addition of EPOLAM 2020 accelerator.	transparent	Finishing parts, glazing composite or decorative parts moulded from PU or epoxy resin when a gloss finish is required.	100/40	75	30 min (without acc.)	500
<b>EPOLAM 2017/ 2017 2018</b>	Several hardeners compatible between each other offering a good ratio open time versus demoulding time for an optimized production depending on processing method.		Composite parts by wet lay-up, RTM, compression molding. EPOLAM 2013 hardener may be used as an accelerator or for quick repairs.	100/30	89	35	700
					83	160	400
<b>EPOLAM 2020</b>	Variable curing time through addition of an accelerator. Low viscosity. Good wettability.		Wet lay-up applications. RTM systems. Polyvalent. Parts and backing.	100/30	80-100	2h15 to 15 min. (acc 0 to 10%)	500
<b>EPOLAM 2022</b>	Very good mechanical properties. Temperature resistant. Thermal resistance. Low viscosity. Good wettability.		High performance composite structures by manual impregnation, vacuum injection or low pressure injection.	100/40	100	60	600
<b>Infusion resins</b>							
<b>EPOLAM 5015/ 5014 5015 5016</b>	Very low viscosity infusion system with excellent wettability for producing parts. LLOYD'S APPROVED.		Production of large-dimension parts: boat hulls, spars, wind-turbine blades, etc.	100/34	80	45	225
				100/30	82	135	210
				100/36	81	225	225
<b>EPOLAM 2040/2042 2047</b>	Excellent balance between open time and demoulding time for an optimized production cycle time. Adjustable reactivity with hardeners compatible with each other.		Composite structures of medium to large size by infusion, vacuum infusion and low pressure pot. GL approved for wind blades production.	100/32	90	100	280
					85	300	220

\* Post curing cycles : consult TDS



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