

**ELASTOMERS**

**SEMI RIGID & RIGID PU**

**TRANSPARENT SYSTEMS**

**TECHNICAL PRODUCTS**

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

# RAPID PROTOTYPING



ISO 9001



ISO 14001



## TRANSPARENT SYSTEM

AXSON started to develop and produce PU systems dedicated for vacuum process almost 20 years ago. We always focus on customer needs to adjust our formulations.

All of them are Rohs compliant and mercury free .



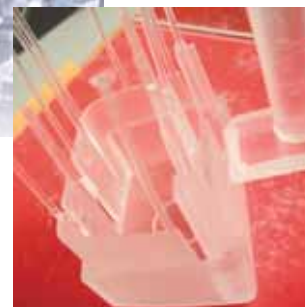
### PX 5211

Similar to PMMA. Dedicated for glass, art and decoration sectors. Could be cast with or without vacuum casting machine in 50 mm thickness (but degas prior to cast in mould). Long working time, easy to polish. Long term UV stability.



### PX 5212

Similar to PC. Dedicated to technical prototype parts up to 10 mm thickness like lenses for headlights, traffic lights, light tubes, transparent covers or casings etc. Short demoulding time 45 minutes at 70°C. Good thermal ageing, easy to sand and polish. Withstand weather conditions. UV stable.



### PX 225 NEW

Technical transparent parts simulating polycarbonate. All parts simulating mass tinted ABS. Short demoulding time. High impact resistant. When long term ageing is required please use PX 5211 as the best offer for UV stability.

## FLEXIBLE



### PX 761

Rubber aspect prototype parts, seals. The only soft PU able to withstand 100°C as a working temperature. Translucent amber colour; could be pigmented. Convenient pot life of 10 minutes.



### UPX 8400

Axon's newly developed UPX 8400 is a 3 component PU elastomers with adjustable hardness. UPX 8400 is used for making prototypes small series of rubber-like parts. Adjustable hardness Shore A 20 - 85, easy to process and pigment outstanding strength, low aggressiveness to silicone moulds. Dedicated to achieve rubber like prototype parts for all sectors of activities.

## TECHNICAL PLASTICS



### PX 234 HT

Similar to PPS or PEEK. For all parts that have to withstand high temperatures, parts for engine compartments or household appliances. Really low viscosity, short demoulding time in 3 mm thickness. Even after final post curing it retains a nice flexibility.



### PX 330

Technical parts for the aeronautical industry according to its FAR 25 certification. All parts requiring a fire-resistance rating in other markets. Rohs compliant for electrical casings.

## POLYADDITION SILICONE RUBBERS

**ESSIL 291:** Silicone polyaddition specially formulated for moulds making in vacuum technology. Exists in 2 versions: dry for transparent resins moulding or parts submitted to paint finishing and oily for improvement of number of cast parts. Its hardness of 38 A shore makes demoulding easier than standard silicones without any mould deformations. The inhibitor ESSIL 90 allows large castings by pot life extension about 5 hours.

References	Description	Colour	Main application	Mixing ratio	Viscosity (mPa.s.)	Pot life	Hardness (shore)	Time before demoulding at 40°C
ESSIL 291/291	Standard	Transparent	Self demoulding, flexible moulds for rapid prototyping.	100/10	40.000	60 mn	38 A	10 h
ESSIL 291/292	Transparent, oiled.			100/10	40.000	60 mn	38 A	10 h

## HDPE – PP TYPE



**PX 212**

PP-aspect prototype parts. Automobile interior trim, covers for household appliances. Translucent, can be pigmented in all colours. Good heat resistance.



**PX 205**

Similar to HDPE. For all parts with an integrated hinge, pinions, guide rails, rollers, limit stops. Long pot life, 80°C of working temperature. High abrasion and impact resistance. Low aggressiveness of silicone moulds.

## ABS – HIPS – FILLED PP TYPE



**PX 2017 HT**

Used by casting for the production of prototype parts and mock-ups whose mechanical properties are close to ABS or filled PP. Thermoplastic-like resistance in temperature (TG > 180°C). Almost no change of mechanical properties after ageing under temperature. Good resistance to automotive fluids (except brake liquid). According to its exceptional compatibility with silicone moulds it's possible to achieve easily 50 castings in a mould without deterioration.



**PX 223 HT**

ABS-like prototype parts for small production runs in vacuum casting machines. High chemical resistance against standard automotive fluids (except brakes fluid). Temperature stability up to 110°C after appropriate post curing.



**PX 100**

HIPS-aspect prototype parts. Large dimensions possible with or without vacuum casting machines. (Will be replaced by UR 845).



**PX 220**

Pure white resin similar to PS Choc. For all parts requiring good impact resistance even with thin sections. Easy to make resistant clips or all parts submitted to stress, as piece of working mechanisms.



**PX 226**

Off white resin similar to high flexural modulus ABS or ABS/PC blends. Suitable for low tension electrical equipments like casings for circuit breakers or switches as well as for House hold appliances parts; coffee machines, vacuum cleaner and casings for medical equipments. Also in long pot life version of 8 minutes for large parts.



**PX 245 /  
PX 245 L**

The only filled system of the PX range, similar to P.O.M. and filled thermoplastics as filled PA 6.6. For all parts requiring high stiffness in flexion. The right answer to mould parts for coping machines, printers and all electronic devices. Good abrasion resistance.





# Selector Guide

References	Description	Colour	Mixing ratio	Flexural modulus (MPa)	Tg (°C)	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	100/50	2400	95	8	85D
PX 5211	Could be cast with or without vacuum casting machine in 50 mm thickness. UV stability, easy to polish. High reproduction accuracy.	transparent	100/60	2000	90	20	85D
PX 225 NEW	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	100/75	2500	80	4 to 5	80D
<b>FLEXIBLE</b>							
PX 761	Can withstand continuous 100°C temperatures. Long pot life. Low viscosity. Can be tinted.	amber	100/45	800	100	10	63A
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	variable	450 to 750	80	12	From 20 A to 85 A
<b>SPECIFIC, TECHNICAL PLASTICS</b>							
PX 234HT	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	100/50	1850	220	5	80D
PX 330	Conforms to FAR 25 (fire resistance) standard. Easy to use. Compliance ROHS.	white	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	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	100/100	1200	90	5	76D
<b>ABS - HIPS - FILLED PP TYPE</b>							
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 50 castings in a mould without deterioration. Temperature stability up to 130° C.	black	100/80	1600	>130	6	80D
PX 220	Very good impact resistance, even at very low thicknesses. Very plastic behaviour.	white	100/50	2000	90	5	80D
PX 100	Low viscosity. Manual application possible. Long pot life.	white	100/100	1500	75	15	74D
PX 226L	Low viscosity. PX 226 suitable for casting large parts. Long pot life.	white	100/50	2500	105	8	82D
PX 226	Very short demoulding time. Low viscosity.	white	100/50	2500	105	4	82D
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.	black	100/80	2300	>120	7	80D
PX 245 / PX245L* * pot life 8 mn	Filled. Very short demoulding time. Very rigid. Good abrasion resistance.	off white	100/40	4500	95	4 to 8	85D

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

Your partner for vacuum casting equipments:



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