

DESCRIPTION

Production vacuum forming moulds and tools for injecting polyurethane foams.

PROPERTIES

- *Low viscosity*
- *Very good surface finish after machining*
- *Aluminium filled to give good thermal conductivity*
- *Two reactivity available*
- *Casting until 70 mm thickness*

PHYSICAL PROPERTIES				
Composition		RESIN	HARDENER	
		EPO 4042	EPO 4042/F	EPO 4042/L
Mix ratio by weight		100	6	7
Aspect		thick liquid	liquid	liquid
Colour		aluminium grey	red	blue
Viscosity at 25°C(mPa.s)	BROOKFIELD LVT	70,000	15	80
Density at 25°C	ISO 1675 : 1985	1.73	0.98	0.94

Mixing viscosity at 25°C	BROOKFIELD LVT	mPa.s	13,000	17,000
Specific gravity at 25°C	ISO 2781 : 1996		1.71	1.71
Pot life at 25°C on 250g	-	min.	140	220

MECHANICAL AND THERMAL PROPERTIES at 23°C (1)				
			EPO 4042/F	EPO 4042/L
Hardness	ISO 868 : 2003	Shore D15	89	89
Flexural modulus	ISO 178 : 2001	MPa	6,300	6,000
Flexural strength	ISO 178 : 2001	MPa	56	52
Compressive strength	ISO 604 : 2002	MPa	87	103

(1) : Average values obtained on standard specimens of pure resin / Hardening 24 hr at room temperature + 2hr at 60°C + 2hr at 80°C.

PROCESSING CONDITIONS – EPO 4042 RESIN with EPO 4042/F HARDENER

Thoroughly mix the resin before use and ensure a homogeneous mix according to the indicated ratio and then cast. For casting above 50 mm we would advise alternative aluminium granular fillers or use EPO 4042/L hardener for until 70 mm thickness.

For further information, consult our technical department.

PROCESSING CONDITIONS – EPO 4042 RESIN with EPO 4042/L HARDENER

Process as above. Product can be demoulded 24 hours but remains delicate in thin section. In this case we recommend product rests for a further 24 hours before demould.

POST CURE (24 hour demould) 2 hrs at 40 °C, then 2 hrs at 60 °C, then 2 hrs at 80 °C

POST CURE (48 hour demould) 2 hrs at 60 °C, then 2 hrs at 80 °C

THERMAL AND SPECIFIC PROPERTIES AT 23 °C				
			EPO 4042/F	EPO 4042/L
Glass transition temperature (T _g) • After 3 days at 23°C • After 2 hrs at 60°C • After 2 hrs at 60°C + 2 hrs at 80°C • After 16 hrs at 80°C	ISO 11359 : 2002	°C	42	42
			50	48
			75	74
			80	80
Coefficient of thermal expansion (CTE) (1) (+5° to +50°C)	ISO 11359 : 1999	10 ⁻⁶ K ⁻¹	47	43
Linear shrinkage (specimen 250x50x50mm) (1)	-	mm/m	1.10	0.5
Maximal casting thickness	-	mm	50	70
Demoulding time	-	hours	16	36 - 48

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products :

Ensure good ventilation

Wear gloves, safety glasses and waterproof clothes.

For further information, please consult the product safety data sheet.

STORAGE CONDITIONS

Shelf life of the resin is 12 months and 24 months for the hardener in a dry place and in original unopened containers at a temperature between 15 and 25°C. Any open can must be tightly closed under dry nitrogen blanket.

PACKAGING

RESIN	HARDENER	
EPO 4042	EPO 4042/F	EPO 4042/L
2 x 5 kg	2 x 0.30 kg	2 x 0.35 kg
1 x 10 kg	1 x 0.60 kg	1 x 0.7 kg

GUARANTEE

The information of our technical data sheet are based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON refuse any guarantee about the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.