

DESCRIPTION

Production of composite tooling and structures by the usual impregnation methods (infusion, wet-lay-up).

PROPERTIES

- Low mix viscosity
- High T_g
- Good wetting of the reinforcements
- Long Pot life

PHYSICAL PROPERTIES				
Composition		RESIN	HARDENER	MIXED
Mix ratio by weight		100	50	
Mix ratio by volume at 25 °C		100	63	
Aspect		Liquid	Liquid	Liquid
Colour		Amber	Colourless	Amber
Viscosity at 25 °C (mPa.s)	BROOKFIELD LVT	1,600	100	550
Specific gravity at 25 °C (g/cm ³)	ISO 1675 : 1985	1.20	0.95	-
Specific gravity of cured product at 23 °C	ISO 2781 : 1996	-	-	1.15
Pot life at 25 °C on 500 g (min)	ASTM D 2471 - 99			400
Time to reach 1,000 mPa.s on 500g at 25 °C (min)	-			230

PROCESSING CONDITIONS

After mixing according to the indicated ratio, carry out impregnation of the reinforcements.

To ensure an optimal use and a good impregnation, please use packagings stored at temperature above 15 °C.

The physical properties are guaranteed between 18 °C and 25 °C.

Outside this range, variations in viscosity and reactivity will be observed.

THERMAL TREATMENT

In order to avoid any risk of distortion or tooling shrinkage a precise curing cycle must be observed.

Demoulding takes place only after a 24 hour pre-curing at 40 °C. A conformer is recommended for complex shapes. Then the following thermal treatment can be carried out : 2 hours at 120 °C, 3 hours at 180 °C with an increase and a decrease in temperature of 20 °C per hour between stages.

HANDLING PRECAUTIONS

IMPORTANT : do not leave the mixing without any supervision. The exothermy discharge during the reaction on these quantities leads to an uncontrolled decomposition of the resin mixing. **TOXIC SMOKES MAY APPEAR AND CAUSE PHYSICAL INJURIES**. Small quantities of mixing reduce heat release. In case of uncontrolled reaction, the mixing has to be dipped into a water container.

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.

MECHANICAL PROPERTIES at 23 °C ⁽¹⁾			
Tensile modulus	ISO 527 : 1993	MPa	4,600
Tensile strength	ISO 527 : 1993	MPa	26
Elongation at break	ISO 527 : 1993	%	1.0
Flexural modulus	ISO 178 : 1993	MPa	2,900
Maximum flexural strength	ISO 178 : 1993	MPa	73

THERMAL AND SPECIFIC PROPERTIES ⁽¹⁾			
Glass transition temperature(T _g)	ISO 11359-2 : 1999	°C	225
Coefficient of thermal expansion (CTE) [+30 to + 180 °C]	ISO 11359-2 : 1999	10 ⁻⁶ .K ⁻¹	67

(1) Average values obtained on standardized specimens. Hardening 12 hours at 40 °C, 2 hours at 120 °C, 3 hours at 180 °C
These values were obtained on the pure resin (without reinforcement).

STORAGE CONDITIONS

EPOLAM 2092 RESIN	EPOLAM 2092 HARDENER
3 months at 15-25 °C 12 months at -18 °C	12 months at 15-25 °C

The shelf life of the **EPOLAM 2092 Resin** is greater than 3 months in case of storage at a temperature below +15 °C.

PACKAGING

EPOLAM 2092 RESIN	EPOLAM 2092 HARDENER
19 KG 190 KG	19 KG 190 KG

GUARANTEE

The information contained in this technical data sheet result from research and tests conducted in our Laboratories 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 guarantee the conformity of their products with their specifications but cannot guarantee 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 responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications.