

DESCRIPTION

Composite structures by the wet lay-up (contact, under vacuum, infusion...). Used in concrete by addition of aluminium or other fillers.

PROPERTIES

- MDA free
- Very high temperature resistance
- Good chemical resistance
- Low viscosity
- Good wetting of the reinforcements

PHYSICAL PROPERTIES				
Composition		RESIN EPOLAM 2080	HARDENER EPOLAM 2025	MIXING
Mix ratio by weight		100	35	
Mix ratio by volume at 25°C		100	44	
Aspect		liquid	liquid	liquid
Colour		amber	blue	dark green
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	4,000	20	650
Specific gravity at 25°C	ISO 1675 : 1985	1.16	0.92	-
Specific gravity of cured product at 23°C	ISO 2781 : 1996	-	-	1.09
Pot life at 25°C on 100 g (hr)	Gel Timer TECAM			5

MECHANICAL PROPERTIES at 23°C (1)			
Flexural modulus	ISO 178 :2001	MPa	2,900
Flexural strength	ISO 178 :2001	MPa	105
Tensile modulus	ISO 527-2	MPa	4300
Maximum tensile strength	ISO 527-2	MPa	55
Elongation at break	ISO 527-2	%	2.5
Finale hardness	ISO 868 :2003	Shore D15	90
Glass transition temperature (T _g)	ISO 11359 : 2002	°C	185
Gelation time @ 23°C on laminate (5 plies / glass fabric 290 g/m ²) (10 plies / glass fabric 290 g/m ²)	LT 051 : 1998	hr	8hr 30 7hr 20

(1) : Average values obtained on standard specimens after curing as per thermal treatment recommended below.

PROCESSING CONDITIONS

LAMINATING : After mixing according to the mix ratio carry out impregnation of the reinforcements. Let polymerise 24 hours at room temperature. **Then cure 24 hours at 45°C for demoulding.**

Then demould and cure (see § Thermal treatment). Laminating thickness must not exceed 10 mm. In case of laminating in 2 steps a peel-ply fabric is recommended.

THERMAL TREATMENT

In order to avoid any risk of strain or tooling shrinkage a precise curing cycle is to be observed. Reminder : demoulding takes place only after a 24 hour pre-curing at 45°C. A conformer is recommended for complex shapes. Then the following thermal treatment can be carried out : 1 hour at 60°C, 1 hour at 80°C, 2 hours at 120°C and 4 hours at 160°C and maintain a temperature increase and decrease 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.

STORAGE CONDITIONS

Shelf life is 9 months for Resin and 12 months for Hardener in a dry place and in original unopened containers at a temperature between 10 and 25°C. Any open can must be tightly closed under dry nitrogen blanket.

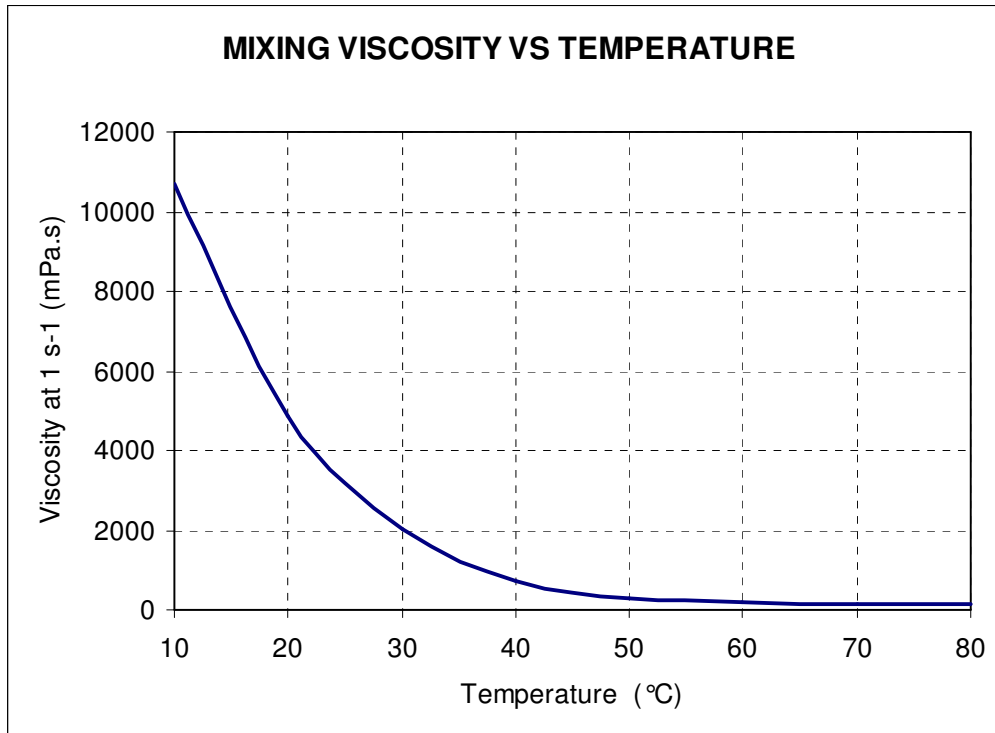
PACKAGING

RESIN EPOLAM 2080	HARDENER EPOLAM 2025
1 x 5 kg 1 x 20 kg	1 x 1.4 kg 1 x 5.6 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.

ANNEX 1



Test machine : Rheometer CVO 100 Bohlin Instruments
Cone – plate system
Gap : 150 µm
Shear rate : 1s⁻¹