

EPOLAM 8064 RESIN EPOLAM 8011 HARDENER

WARM TO HOT CURING EPOXY SYSTEM
INDUSTRIAL COMPOSITES

PROPERTIES

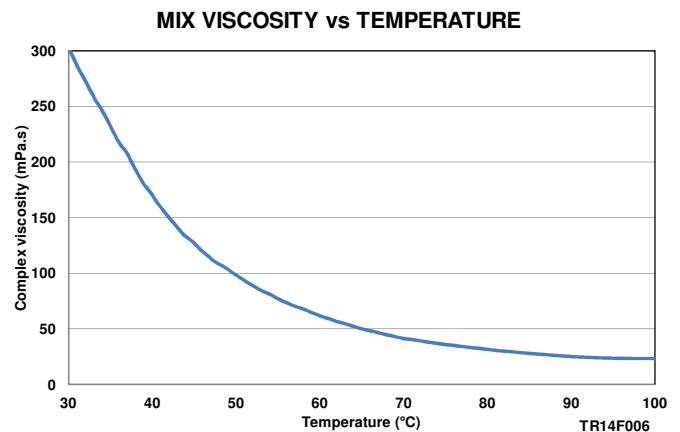
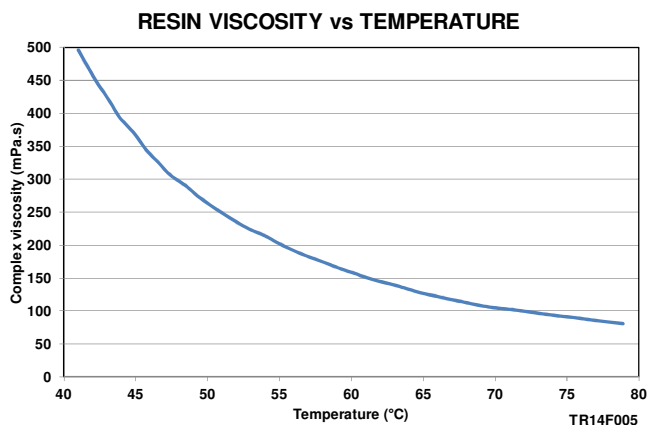
Low viscosity amine-cured laminating epoxy system showing excellent flexibility and high reactivity.

PROCESSING

- Resin Transfer Moulding (RTM, VARTM)
- Pressure Moulding

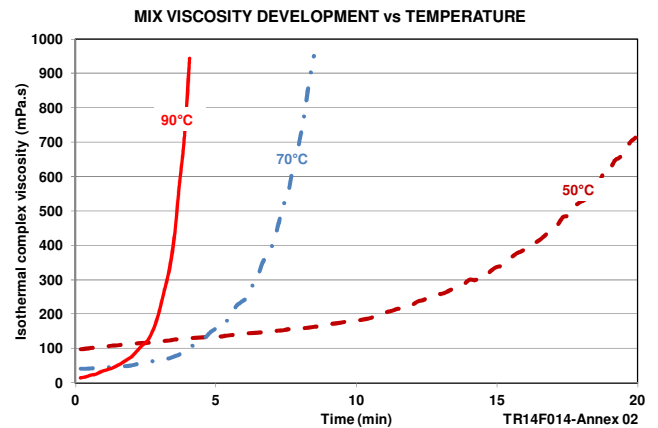
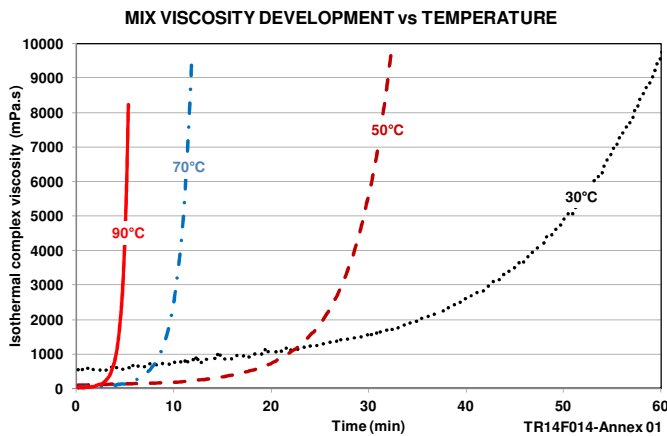
PHYSICAL PROPERTIES					
Composition			RESIN	HARDENER	MIX
Mix ratio by weight			100	21	
Mix ratio by volume at 25 °C			100	26	
Aspect			liquid	liquid	Liquid
Colour			amber	colourless	Amber
Viscosity at 25 °C	(mPa.s)	BROOKFIELD LVT	1,700	10	320
Specific gravity at 25 °C	(g/cm ³)	ISO 1675: 1985	1.16	0.95	1.12
Gel time on 100 ml at 25 °C (min)		Gel Timer TECAM			45
Gel time at					(min) (s)
- 80 °C		ISO 8130-6: 1992 (Hot plate)			9 – 10 -
- 100 °C					3.0 – 3.5 -
- 120 °C					1.0 – 1.5 -
- 150 °C					- 24 – 28
- 170 °C					- 17 – 19
- 190 °C					- 10 - 12

(1): The gel time values shown are for small amounts of pure resin/hardener mix. In composite structures the gel can differ significantly from the given values depending on the fibre content and the laminate thickness.



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PROCESSING CONDITIONS

We recommend that the components are weighed with an accurate balance to prevent mixing inaccuracies which can affect the properties of the matrix system. The components should be mixed thoroughly to ensure homogeneity. It is important that the side and the bottom of the vessel are incorporated into the mixing process. When processing large quantity of mixture the pot life will decrease due to exothermic reaction. It is advisable to divide large mixes into several smaller containers.

TYPICAL CURES CYCLES

- 15 min 80°C + 1hr 120°C

The optimum cure cycle has to be determined case by case depending on the processing and the economic requirements

MECHANICAL PROPERTIES at 23 °C (2)			
Tensile modulus	ISO 527-2: 1993	MPa	3,400
Tensile strength	ISO 527-2: 1993	MPa	72
Elongation at break	ISO 527-2: 1993	%	4
Flexural modulus	ISO 178: 2001	MPa	2,600
Flexural strength	ISO 178: 2001	MPa	110

(2) : Average values obtained on standard specimens, 30 min. 60 °C + 2 hrs 120 °C

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THERMAL AND SPECIFIC PROPERTIES

Glass transition temperature (T _g)	ISO 11357-2: 1999	°C	75 - 80
- 1 hr 60 °C			84 - 87
- 4 hrs 60 °C			110 - 114
- 1 hrs 80 °C			112 - 116
- 2 hrs 80 °C			115 - 118
- 30 min 120 °C			117 - 120
- 1 hr 120 °C			120 - 123
- T _g Ultimate			

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 resin part is 24 months and 12 months for the hardener part in a dry place and in their original unopened containers at a temperature between 5 and 40 °C. See expiry date on original container. Partly emptied containers should be closed immediately after use.

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.