



BUILDING TRUST



EPOLAM 8064R Resin EPOLAM 2001 Hardener

COLD TO WARM CURING EPOXY SYSTEM
INDUSTRIAL COMPOSITES

DESCRIPTION

The system is a laminating system with high reactivity at low temperatures with good mechanical properties. EPOLAM 8064R is a low viscosity epoxy Resin EPOLAM 2001 is a aliphatic amine

MAIN FEATURES

- System specifically designed to manufacture composite parts
- High reactivity at RT

PROCESSING

- Resin Transfer Molding (RTM)
- Pressure Moulding
- Wet lay-up

PHYSICAL PROPERTIES				
Composition	Method	EPOLAM 8064R RESIN	EPOLAM 2001 HARDENER	MIX
Mix ratio by weight		100	28	
Mix ratio by volume at 25°C		100	32	
Aspect		liquid	liquid	liquid
Colour		amber	amber	amber
Viscosity at 25°C (mPa.s)	Brookfield LVT	1,500	650	850
Specific gravity at 25°C (g/cm ³)	ISO 1675: 1985	1.17	1.01	1.14
Pot life on 100 ml at 23°C (min)	Gel Timer TECAM			30
Gel time thin thickness at (min) (1)	ISO 8130-6: 1992 (Hot plate)			75 – 85
• 40°C				24 – 30
• 60°C				7 – 12
• 80°C				

(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.

PROCESSING CONDITIONS

We recommend the components to be weighted with a precision scale to prevent any mixing inaccuracies that can affect the final properties of the matrix system. The components should be mixed thoroughly to ensure homogeneity. Attention must be paid on incorporating materials from the sides and the bottom of the vessel into the mixing process.

When processing a large quantity of mixture the pot life will decrease due to exothermic reaction. It is advised to divide large mixes into several smaller containers.



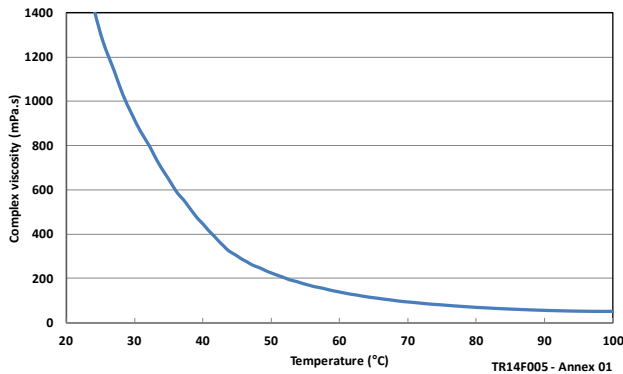
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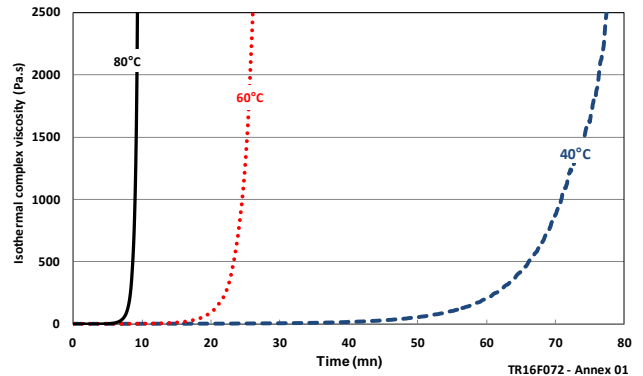
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MIX VISCOSITY vs TEMPERATURE



MIX VISCOSITY DEVELOPMENT vs TIME



TYPICAL CURING CYCLES

- 15 hrs at 50°C
- or 4 hrs at 80°C
- or 2 hrs at 100°C

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

MECHANICAL PROPERTIES at 23°C (2)

Flexural modulus	ISO 178: 2010	MPa	2,600
Max. Flexural strength	ISO 178: 2010	MPa	110
Tensile modulus	ISO 527-2: 2012	MPa	3,600
Tensile strength	ISO 527-2: 2012	MPa	70
Elongation at tensile strength	ISO 527-2: 2012	%	5.5
Ultimate elongation	ISO 527-2: 2012	%	8

(2) : Average values obtained on standard specimens cured for 4 hr at 80°C

THERMAL AND SPECIFIC PROPERTIES

Glass transition temperature (Tg)	ISO 11357-2: 2013 DSC Midpoint	°C	47 - 52
• 7 days at RT			70 - 76
• 15 hrs at 50°C			79 - 85
• 15 hrs at 60°C			83 - 90
• 2 hrs at 80°C			84 - 95
• 4 hrs at 80°C			84 - 95
• 4 hrs at 100°C			84 - 95



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HANDLING PRECAUTIONS

Conventional 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 datasheet.

STORAGE CONDITIONS

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

GUARANTEE

The information contained in this technical datasheet results from tests conducted in AXSON Laboratories under specific conditions. It is the responsibility of the users to determine the suitability of AXSON products, under their own conditions before starting with an application. AXSON guarantees the conformity of its products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaims 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.