

EPLAM 86

Hand-lay-up Epoxy Resin

DESCRIPTION

EPLAM 86 is two component epoxy system, which is made of a resin and three hardeners. It is used for the production of composite tools by wet lay-up methods.

CHARACTERITIC

- Variable reactivity
- Easy to use
- Good wettability of fibers
- Low viscosity
- Compatible hardeners

PHYSICAL PROPERTY

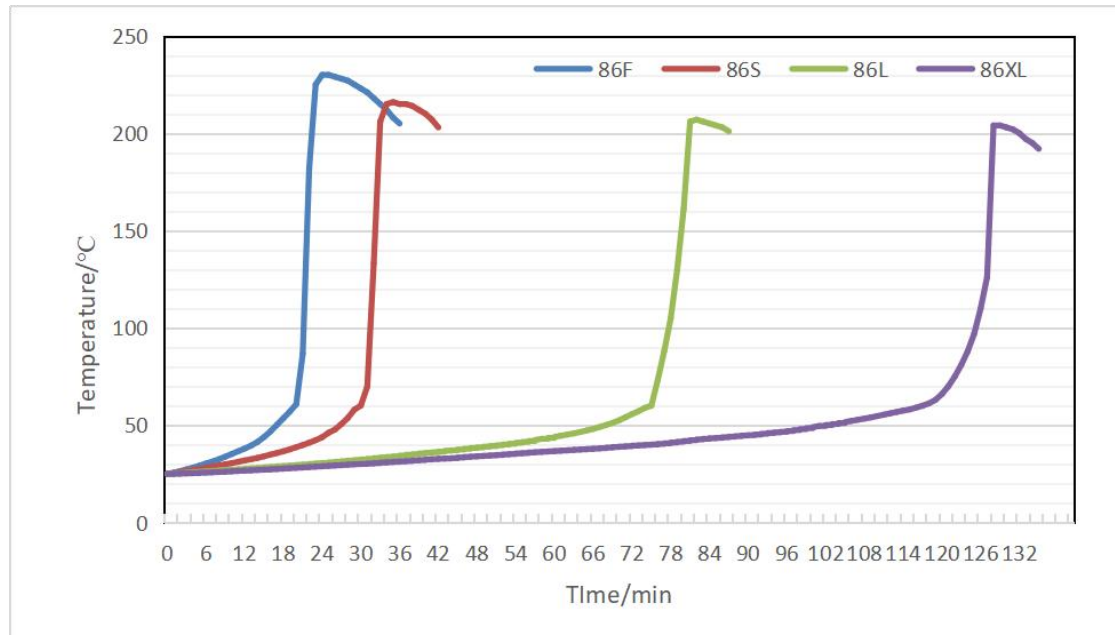
		EPLAM 86 Resin	EPLAM 86F Hardener	EPLAM 86S Hardener	EPLAM 86L Hardener	EPLAM 86XL Hardener
Mixing ratio by weight		100	25	25	25	25
Aspect		liquid	liquid	liquid	liquid	liquid
Color		Light amber	Light amber	Light amber	Light amber	Light amber
Viscosity at 25°C (mPa.s)	ISO 2555:2018	2500-3500	30-40	15-25	30-40	30-40
Density at 25°C (g/cm ³)	ISO 1675:1985	1.15	0.94	0.93	0.94	0.94
Mixing viscosity at 25°C (mPa.s)	ISO 2555:2018		600-700	450-600	600-700	600-700
Pot-life at 25°C on 125g (min)	Gel Timer		15-25	25-35	60-90	90-120

			EPLAM 86F Hardener	EPLAM 86S Hardener	EPLAM 86L Hardener	EPLAM 86XL Hardener
Shore Hardness	ISO 868:1985		86D	88D	88D	88D
Flexural strength	ISO 178:2001	MPa	75-90	80-100	80-100	80-100
Flexural modulus	ISO 178:2001	GPa	2.0-2.5	2.0-2.5	2.0-2.5	2.0-2.5
Compression strength	ISO 604:1997	MPa	>75	>75	>75	>75
Glass transition Temperature	ISO 11357:2002	°C	75	81	83	84
Maximal laminating thickness		mm	4	5	8	12
Gelation time at 23°C on laminate	5 plie /glass fabric 290g/m ²	min	40	60	140	220
Demolding time at 23°C on laminate	5 plies/glass fabric 290g/m ²	hour	6	9	24	30

*Average values obtained on standard specimens/ Hardening 8h at 25°C + 12h at 80°C

Exothermic curve

100g mixing weight of EPLAM 86 at 25°C



	EPLAM 86F	EPLAM 86S	EPLAM 86L	EPLAM 86XL
Mixing ratio	100 : 25	100 : 25	100 : 25	100 : 25
Time to reach peak temperature (min)	24	35	82	128
Exothermic peak temperature (°C)	230	216	207	204

PROCESSING

Choose the adopted hardener according to the dimension and complexity of the application, mix it with resin homogeneously and then impregnate the fiber reinforcement by appropriate method. To obtain the desired temperature resistance and the optimal mechanical properties it is necessary to make a post treatment. The thermal treatment takes place 12 to 24 hours after application according to the hardener.

PACKAGE

EPLAM 86 Resin	EPLAM 86F Hardener	EPLAM 86S Hardener	EPLAM 86L Hardener	EPLAM 86XL Hardener
20 kg	5 kg	5 kg	5 kg	5 kg

STORAGE

While stored in dry place and in original unopened containers at temperature between 15°C and 25°C, the shelf of resin is 24 months and the shelf life of hardener is 12 months. Exposure to low temperature for longer time might cause crystallization. In case crystallization occurs, heat it up to 50-60°C until it becomes to transparent liquid. Heating the product will not have any defective effect on the property of the product.

Any open can must be tightly closed under dry air or nitrogen blanket. The remaining product should be used up as soon as possible.

PRECAUTION

Avoid contact with skin while in application, wear mask, gloves and protection close when necessary; used in well ventilated area.

For further information, please consult product safety data sheet.

WARRANTY INFORMATION

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use.