

KINETIX R118 is a very low viscosity epoxy resin specifically formulated for us with a range of hardeners that are suitable for most infusion processes, including SCRIMP, VARTM, and RIFT.

KINETIX H120 and H126 cure at room temperature and offer excellent properties without the need for post cure.

In comparison, H103 provides a longer pot-life and higher Glass Transition Temperature (T_g), however, the system does exhibit brittle behaviour at ambient cure and will require post-cure (minimum 50°C) at elevated temperatures to obtain optimum mechanical and distortion properties.

H115 cures at room temperature and develops a crisp cure allowing demould after 5 hours. The R118 / H115 combination offers excellent mechanical properties without the need for post cure. It is designed for experienced operators* to provide vinyl ester cure times, with an epoxy system. Care must be taken as this system exotherms in bulk, if new to this system please contact ATL Composites for technical support.

The low viscosity of these systems enhances fibre wetting, enabling the production of high strength, void-free laminates that have excellent moisture resistance.

Typical applications are the fabrication of parts requiring high strength and lightweight such as high performance yachts, masts, kayaks and sporting equipment.

Where higher temperature performance is required, refer to TECHNIREZ R2600 Technical Data Sheet and contact ATL Composites for specific information.

MIX RATIO

- 16 parts H115 hardener to 100 parts resin by weight.
- 25 parts H126 hardener to 100 parts resin by weight.
- 25 parts H120 hardener to 100 parts resin by weight.
- 25 parts H103 hardener to 100 parts resin by weight.

Note: Care should be taken when dispensing and mixing. Do not attempt to control the cure time by altering the hardener ratio. Contact ATL Composites for specific information.

UNCURED PROPERTIES

	R118	H115	H126	H120	H103
Physical State	Clear liquid	Amber liquid	Pale brown liquid	Yellow liquid	Clear liquid
Viscosity mPas@25°C	450	54.5	113	45	20
Specific Gravity g/ml@25°C	1.11	1.02	0.98	0.94	0.93

CURE CHARACTERISTICS

	H115	H126	H120	H103
Pot Life -100g @ 25°C (in air)	19 mins	42 mins	75 mins	145 mins
Mix viscosity mPas @ 25°C	200	340	240	220
Shore D Hardness - 2 weeks	85	84	84	85
Glass Transition Temperature				
24 hours @ 25°C	50°C	42°C	45°C	43°C*
24 hours @ 25°C+16 hours @ 40°C	72°C	61°C	63°C	62°C
24 hours @ 25°C+8 hours @ 60°C	-	76°C	68°C	78°C
24 hours @ 25°C+8 hours @ 80°C	-	79°C	75°C	90°C
24 hours @ 25°C+2 hours @ 120°C	-	82°C	75°C	96°C
**Ultimate Glass Transition Temperature (T _g)	-	82°C	75°C	96°C

* Requires post-cure (minimum 50°C) at elevated temperatures to obtain optimum mechanical and distortion properties.

** Ultimate Glass Transition Temperature (T_g) based on post cured temperature of 24 hours @ 25°C + 2 hours @ 120°C.

PACK SIZES				
Order Code		Order Code		PACK
Resin		Hardener		
RC118	4 kg	HC117	1 kg	5 kg
		HC126	1 kg	
		HC120	1 kg	
		HC103	1 kg	
RD118	18 kg	HD117	4.5 kg	22.5 kg
		HD126	4.5 kg	
		HD120	4.5 kg	
		HD103	4.5 kg	
RF118	200 kg	HF115	32 kg	232 kg
		HF126	50 kg	
		HF120	50 kg	
		HF103	50 kg	

STORAGE

KINETIX R118 resin and H115, H126, H120 and H103 hardeners will keep for 2 years if kept in original containers at room temperature (15°C to 32°C), and out of direct sunlight. Containers should be tightly sealed to prevent moisture absorption.

HEALTH AND SAFETY

KINETIX R118 resin and H115, H126, H120 and H103 hardeners have moderate sensitising potential, and should be kept out of the eyes and off the skin.

- Use with good ventilation and adequate safety equipment including impervious gloves and safety glasses.
- If skin contact occurs, remove contaminated clothing immediately, and wash the affected area thoroughly with water, avoiding the use of solvents except in the case of massive contamination.
- If eye contact occurs, immediately flush with running water for at least 15 (fifteen) minutes and seek medical advice.
- If swallowed:

Resins - DO NOT induce vomiting, and contact a doctor or the Poisons Information Centre.

Hardeners - DO NOT induce vomiting, give plenty of milk or water and contact a doctor or the Poisons Information Centre.