



Product Information

Resin Hardener Mixing ratio by weight

EC 152 W 152 HR 100:30

Description: High performance un-filled epoxy laminating resin, suitable for the moulding of carbon fibre, glass fibre and aramid / kevlar fabrics. A wide variety of hardeners allow for desired pot life's and gel times to be achieved. This laminating resin will cure at room temperature, although it is recommended that a post cure is done at a higher temperature to obtain the best mechanical performance from the resin. As well as its high mechanical properties this resin cures clear so it is suitable for both structural and cosmetic applications.

Uncured Properties

	Resin (EC152)	Hardener (W152HR)
Colour	Pale / Yellow	Pale / Yellow
Viscosity @ 25°C	1.200 – 1.800 mPas	30 – 80 mPas
Density @ 25°C	1.13 – 1.17 g/ml	1.02 – 1.06 g/ml

Cured Properties

		EC 152 / W 152 HR
Density @ 25°C		1.15 – 1.19 g/ml
Hardness @ 25°C		84 – 88 Shore D/15
Glass transition (Tg)	16 hrs @ 50°C	76 – 82 °C
	16 hrs @ 80°C	89 – 95 °C
Maximum Tg	16 hrs @ 90°C	90 - 96 °C
Flexural strength		112 – 122 MN/m ²
Maximum strain		5.0 – 7.0 %
Strain at break		8.0 – 11.0 %
Flexural elastic modulus		2.800 – 3.200 MN/m ²
Tensile strength		70 – 78 MN/m ²
Elongation at break		5.5 – 8.5 %
Compressive strength		84 – 94 MN/m ²



Processing Data:

	Pot Life @ 25°C (50mm / 200ml)	Exothermic Peak @ 25°C (50mm / 200ml)	Gelation Time @ 25°C	
			Tack Start (1mm)	Tack End (1mm)
EC152 / W152HR	10 – 14 minutes	230 °C – 250 °C	1.5h – 2.5h	2.5h-3.5h

How to use:

Mix 100 parts resin to 30 parts of hardener by weight, this is very important as with all epoxies incorrect mixing ratios will result in a very poor cure of the resin.

Mix thoroughly for at least a minute.

This epoxy system is highly reactive and once mixed will start to exotherm, start lamination of the part as soon as the resin has been properly mixed.

Demoulding Information

	EC152 / W152 HR			
Temperature	@ 15°C	@ 20°C	@ 25°C	@ 30°C
Demoulding Time	9h	6h	4.5h	3h

Cure / Post Cure Information:

Cristex' epoxy laminating system will cure at room temperature, after demoulding it will take several days for the cure to complete. In order to achieve the best mechanical properties from the resin a post cure is recommended. For most applications a post cure at 50°C is enough however by slowing down the ramp rate or increasing the part cure temperature to 80°C or 90°C this will improve the mechanical performance of the finished part.

Storage

Epoxy resins and hardeners have a shelf life of two years in the original sealed containers stored in a cool, dry place. The hardeners are moisture sensitive, therefore it is good practice to close the vessel immediately after each use.

Handling precautions

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

Disclaimer: The information given in this publication is based on the present state of our technical knowledge, buyers and users should make their own assessments of our products under their own application conditions.

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