Amore Resin Art Crystal Resin System

Description

The Crystal Resin system is a low viscosity resin, which makes it extremely suitable for laminating woven and non-woven reinforcements of carbon fibre, aramid, S-Glass, E-Glass, dynel and powder bound chopped Strand mat. The low viscosity makes it an ideal wood saturation system for external timber coating and when mixed with the appropriate powder or fibers can be used as a glue or filler for Marine, Industrial or Handyman use. Crystal Resin is high clarity enables it to be used in various art applications such as picture and canvas coating, resin art and castings or imbedding.

Uses

Ideal to use for impregnation of carbon and aramid fibre. Wood saturation, art and casting applications. Use in many areas from marine, transport, water tanks, timber and ply work.

Advantages

High clarity and low viscosity
Excellent adhesion
Good pot life
No amine blushing in thin film

Typical Liquid Properties

Property	Unit	Spec	Remarks
Specific Gravity	-	1.00-1.10	Sheen Cup
Viscosity	cps	400-800	#2, 12rpm
Thix Index	-	N/A	-
Acid Value	Mg KOH/g	N/A	-
Volatile Content	%	N/A	-
Gel Time	min	35-45	2:1 Ratio
Gel Time Thin Film	min	110-120	

Instructions for Use

Please always consult the safety data sheet before use. Crystal Resin's optimum working temperature is between 18-28^{0}C. At lower temperatures, the product thickens and may become difficult to use. At higher temperatures working time will be reduced. The maximum relative humidity to use at is 70%. Mixing ratio for each of the hardeners is as follows;

1000A Series- 100ml/100gm : 1000B Series- 50ml/50gm

Ambient Temperature Cure

The Crystal Resin epoxy system has been developed to return good mechanical properties after cure in ambient temperatures. The minimum recommended temperature is 18^{0}C. An initial cure of at least 36 hours is

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recommended before demoulding. Laminates or coatings created using the Crystal Resin system should be allowed seven days before they are considered adequately cured. It is recommended that these mouldings be kept in a warm dry environment during this period

Post Cure

Post curing the laminate will greatly increase the mechanical properties of the laminate. The Crystal Resin system will achieve excellent properties after four hours at 80^0C, or 14 hours at 50^0C. Post curing the 1000 Series system improves the finished properties considerably.

The post curing process does not need to be carried out immediately. It is possible to assemble a number of components and post cure the finished assembly, such as building a boat. Any large structure should be well supported when being post cured. During the post curing process, the laminate will soften. It won't reach full cure until having cooled down after initial heat has been applied. It is necessary to keep the laminate supported until it has cooled

Storage and Shelf Life

Store in a cool, dry area, away from sources of increased heat, sunlight or frost. Store in original container sealed. Shelf life if stored correctly up to 3 years. Please note clarity of the resin will differ if not stored correctly away from sunlight.

Notes

Use a measuring device or syringe to weigh out catalyst, correct levels are essential to resin cure. When mixing resin and hardener ensure that they are mixed thoroughly paying special attention to the side and bottom of the container. The resin should than be transferred to a shallow tray to reduce exothermic heat build-up.

Please always note that epoxy resins have poor UV protection. If you will have this product out in the sunlight for prolonged periods of time ensure you have coated the material with a good quality clear 2 pack polyurethane top coat for UV protection. Not coating will cause the epoxy to yellow and lose of clarity.
All information provided in this bulletin is to be used as a guide only, individual tests should be conducted to determine if this product is suitable for your application.

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