FIBREGLAST™

78

Fibre Glast Developments Corporation
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General Purpose Laminating Resin

#78 General Purpose Laminating Resin is ideal for part fabrication and for building low cost molds. It is designed for robust processing and outstanding physical properties. #78 Laminating Resin is ideal for operations that require low HAPS. This resin is wax free to reduce sanding between coats. Formulated for 1.25% MEKP. May be used on most metals but Vinyl Ester or Epoxy will provide better adhesion. Do not use on Styrofoam. Store in a cool place.

- High thixotropic index to prevent draining on vertical surfaces
- Low viscosity for fast wet-out
- Low HAPS
- This resin can be used for hand lay-up for general fiberglass reinforced plastics applications

Mixing Directions
Shake well before using. To initiate hardening add #69 MEKP Hardener in a ratio of 1.25%. For easy measure use one teaspoons of hardener per pint (pound) of resin, two teaspoons per quart or 7 teaspoons per gallon. For very small quantities use 13 drops of hardener per ounce of resin. Measure the components, do not guess at them.

At a temperature of 72°F the resin will begin to harden in about 20 minutes and be sandable in about six hours. Full cure will take about 24 hours. At cooler temperatures the mixture will take longer to harden and at warmer temperatures it will take less time. The ratio of hardener may be adjusted to compensate for temperature extremes; add up to 50% more hardener when cooler and correspondingly less when warmer.

Do not use when temperature is below 55°F. Mix only small quantities when the temperature is above 85°F as hardening will occur very rapidly. Never apply in direct sunlight. Mix in clean glass, paper, plastic or metal containers. Do not use foam containers. Mix no more than you can use before the resin begins to harden.

Surface Preparation & Laminating
Surface Preparation:
When repairing fiberglass, all surfaces must be clean and free from dirt, oil or other foreign materials. All paint should be removed by sanding with coarse (80 grit) sandpaper. Raw wood should be primed with a thin but uniform coat of resin and allowed to set for one hour to allow penetration of the wood before applying successive coats of resin or fiberglass reinforcements.

Laminating:
#78 General Purpose Laminating Resin can be applied to most metals, fiberglass or synthetic reinforcements with a brush, squeegee, or short nap paint roller. A stippling or dabbing action is required when using a brush. Thick laminations can be rolled out with a grooved Saturation Roller. A properly applied fiberglass laminate will be uniformly translucent (assuming no pigmentation of the resin) without a glossy or smooth surface. A “milky” appearance indicates insufficient resin. A glossy, smooth surface indicates too much resin. When using multiple layers of reinforcement, it is not necessary to wait for one layer to cure before applying the next layer.

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Safety and Handling

#78 contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn. Individuals should wash with soap and water before eating, drinking, or using toilet facilities. Individuals should observe conditions of good industrial hygiene and safe working practice. For more detailed instructions on handling please see the SDS.

Shelf Life: Three months from date of manufacture, when stored in accordance with the storage conditions stated below. Drums: Store at temperatures below 25C. Storage life decreases with increasing storage temperature. Avoid exposure to heat sources such as direct sunlight or steam pipes. To avoid contamination of product with water, do not store outdoors. Keep sealed to prevent moisture pick-up and monomer loss. Mild mixing is recommended after prolonged storage. Rotate stock

Typical Liquid Properties (25C/77F)

Property	67355 T-20	67355 T-25	Unit	Method
Geltime [1]	20	25	min	HC-04A
Gel to Peak time	6	7	min	HC-04A
Peak Exotherm Temperature	330	330	F	HC-04A
Brookfield Viscosity (LV#3 @ 60rpm)	600	600	cps	ISO 2555
Thix Index	2.1	2.1		ISO 2555
Non Volatiles minimum	63	63	%	
Density	9.1	9.1	lb/gal	ISO 2811
HAP	33.5	33.5		

[1] Gel time was tested @77°F/25°C with 1.5 grams Lupersol DDM-9 Catalyst in 100 grams of resin.

Typical Mechanical Properties

Property	Value	Unit	Method
Tensile Strength	9100	psi	ISO 527-2
Tensile Modulus	500	ksi	ISO 527-2
Tensile Elongation	2.1	%	ISO 527-2
Flexural Strength	13000	psi	ISO 178
Flexural Modulus	510	ksi	ISO 178
Heat Deflection Temperature	91	°C	ISO 75-2

Clear Cast Panels post cured 5 hrs @100°C