

MIR-940

Steel Coating Resin

DESCRIPTION	<p>MIR-940 is a tough, structural, anti-corrosion resin for protecting steel structures that is also abrasion resistant, has excellent chemical resistance and hydrolytic stability. It bonds tenaciously with MIR-900 steel primer and should be applied with traditional glass laminates.</p>	
FEATURES AND BENEFITS	Micro-fibre technology	<ul style="list-style-type: none"> • Nanoparticles and microfibers chemically bond with the resin to improve the resin's structural performance. • Glass flakes ensure excellent hydrolytic stability. • Based on a high quality vinyl ester resin.
	HDT formulation	<ul style="list-style-type: none"> • High HDT. • Suitable for most exterior applications if painted or if UV additives are mixed with the resin.
	Application	<ul style="list-style-type: none"> • It is essential that all layers are kept free from contaminants such as moisture, oils, dust etc. as they will affect the quality of the surface adhesion. • Prepare steel by dry abrasive blasting with a class Sa 2½ finish with a 50 to 100 microns profile. • Apply MIR-900 steel primer and let dry for 3 hours. • Apply MIR-940 as soon as possible and within 12 hours of applying the primer using a brush or chopper gun. • Subsequent MIR-940 layers should be applied within 12 hour intervals. • The material bonds tenaciously with itself. • All seams and edges should be tapered at 100mm intervals.
	Glass reinforcement	<ul style="list-style-type: none"> • The micro-fibres are not visible and do not print through to the surface. • Suitable for use with CSM, chopped rovings and other glass laminates. • When applied using a chopper gun select a resin : glass ratio 1.8–2 : 1. • Maximum thickness per layer 1/8".
	Additives	<ul style="list-style-type: none"> • Available with UV for exterior topcoats. • Receptive to most pigments. • Please request any additive selections at the time of placing your order. We do not advise clients to mix their own additives.

TYPICAL LIQUID RESIN PROPERTIES	<u>Properties at 25°C</u>	<u>Method</u>	<u>Units</u>	<u>Value</u>
	Density	ASTM D792	g/ml	1.6
	Viscosity	ASTM D2196	cP	4,000
	Thix Index	ASTM D2196	n/a	5.0
	Glass Content	Formula	%	50
	Styrene Content	Formula	%	45
PROCESSING GUIDELINES	<u>Gel Characteristics at 25°C</u>			
		<u>Gel Time</u>	<u>Peak Time</u>	<u>Peak Temp</u>
	2.0% DDM-9, 100 g mass	19 min	30 min	305°F
	a) This resin system is designed for use with most good quality MEKP peroxides. Use only in the range of 1.5 to 2.5 percent.			
	b) This product has been optimally formulated. Do not add promoters, fillers, or other additives. If you feel that your application requires some adjustment, please contact our technical service team first.			
c) Ideal application temperature: 77°F. Insufficient cure and poor strength development may occur at low temperatures. Do not use below 68°F.				
TYPICAL CURED RESIN PROPERTIES	<u>Physical Properties</u>	<u>Method</u>	<u>Units</u>	<u>Value</u>
	Barcol Hardness, Ultimate (GYZJ-935 scale)	ASTM D2583	n/a	80
	Flexural Strength	ASTM D790	psi	41,000
	Flexural Modulus	ASTM D790	Mpsi	2.0
	Flexural Elongation @ Break	ASTM D790	%	4.5
	Tensile Strength	ASTM D638	psi	22,000
	Tensile Modulus	ASTM D638	Mpsi	2.0
	<u>Thermal Properties</u>			
	HDT, 264 psi	ASTM D648	°F	221
	a) Properties are typical values using 2 layers of 2 oz. csm fiberglass that have been laminated in standardized laboratory conditions.			
b) It is the responsibility of the end user to ensure that properties actually achieved are suitable for the intended use.				
c) Properties may vary depending upon the degree of cure.				
SAFETY	For industrial use only. Not for household use. Do not use this product unless you have read and understand the MSDS. This product is flammable. Keep away from sparks and sources of heat. Ground and bond all containers.			

STORAGE	To ensure maximum stability and to retain optimal resin properties, resins should be stored between 68-77°F. Store in the original closed container. Keep closed when not in use. Store away from sources of heat. Storage areas should conform to local fire and building codes. Rotate stock on a first in, first out basis.
STANDARD PACKAGING	55 gallon open top drum 5 gallon pail
COMMERCIAL WARRANTY	Shelf life is three months from the date of shipment, when stored in accordance with the storage conditions above. Extended storage or storage outside of recommended conditions may cause drift in viscosity and gel times.
NOTICE	Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for their self the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results obtained by using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

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