

Product Data



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R0560

ALUMINIZED ISOPHTHALIC TOOLING RESIN

R-0560 Aluminized Isophthalic Tooling Resin represents a major advance in FRP tooling products. This low exotherm tooling resin has the excellent strength and chemical resistance characteristic of good quality isophthalic polyesters combined with the heat transfer properties from the aluminum incorporated in the formula, all of which work together to provide outstanding mold life to your well-designed FRP tool.

R-0560 is specifically recommended for use with HK Research's B-9050 Aluminized Vinylester Hybrid Tooling Gel Coat. Application procedures and recommendations are outlined in the B-9050 Technical Bulletin and HK Research's Tooling Guide.

TYPICAL PROPERTIES OF R-0560 @ 77°F

Weight/Gallon:	9.50 Pounds
Specific Gravity:	1.15
Viscosity, Brookfield,	
@ 6 rpm:	1100-1500 cps
@ 60 rpm:	400-500 cps
Acid Number:	< 10
Gel Time, 1.25% MEKP,	
100-gram mass:	15-20 minutes
1/8" Laminate gel time:	20-30 minutes
Barcol hardness development	
in 1/8" Laminate, 35% glass,	
1.25% MEKP,	
2 Hours:	10-20
3 Hours:	20-25
4 Hours:	25-30
24 Hours:	45+
Shelf Life, Uncatalyzed:	3 Months minimum

**TYPICAL PHYSICAL VALUES
(CLEAR 1/8" THICK CASTING)**

		<u>Test Method</u>
Barcol Hardness:	45	----
Flexural Strength:	18,500 psi	ASTM D-790
Flexural Modulus:	5.65 X 10 psi	ASTM D-790
Tensile Strength:	8,200 psi	ASTM D-638
Elongation in Tension:	1.5%	ASTM D-638
Heat Distortion Temp (264 psi):	108°C	ASTM D-648

CATALYZATION AND APPLICATION

Proper catalyzation is important to the cure of any good laminating resin. R-0560 Tooling Resin should be catalyzed with Methyl Ethyl Ketone Peroxide (RCI Superox 46-702 or equivalent) at a level of 1.25% of the resin weight.

The aluminized resin and catalyst should be mixed thoroughly and then carefully applied by spraying, brushing or rolling along with chopped fiberglass strands directly behind the properly applied and cured gel coat film. Instructions for the proper application of a skin coat laminate can be found in Technical Bulletin HKR055. Since the aluminum makes this resin and the resulting laminate opaque, extreme care must be taken to assure that the glass reinforcement is thoroughly wet with resin and all entrapped air is worked out of the laminate.

We recommend that you consider using the aluminum resin for the skin coat and the first three or four layers of glass mat used in the construction of this mold. This amount of aluminum resin along with the aluminized gel coat will offer a maximum level of heat transfer in the mold. The remainder of the mold can then be completed with a good quality isophthalic tooling resin such as HK Research's R-0528 or R-0976 along with sufficient reinforcement and bracing to produce a good solid mold.

SAFETY CONSIDERATIONS

HK Research's Isophthalic Tooling Resins are based on a resin, which contains styrene monomer, which is a flammable liquid. Keep away from sparks, heat and open flame (including pilot lights). Electrical equipment should be vapor-proof and protected from breakage.

Styrene vapors are heavier than air and will tend to concentrate in the low areas of molds and in pockets immediately above the floor area. To keep vapors within a safe limit in all areas, adequate ventilation or suction fans should be used that will remove these styrene monomer vapors.

All equipment must be grounded - including spray guns and molds.

Both the polyester gel coat and the catalyst may cause burns to eyes and skin. Do not get in the eyes! Avoid breathing vapors! Gel coat applicators should wear a NIOSH approved respirator effective for vapors, spray mist and dust. In case of accidental contact, remove contaminated clothing and wash affected skin areas with soap and copious quantities of water. Contact a physician if persistent skin irritation occurs. For eyes, immediately flush with plenty of water for at least 15 minutes; call a physician immediately. Wash contaminated clothing before reusing.