Product Data

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A-SERIES ISOPHTHALIC BASED GEL COAT

HK Research Corporation's light stabilized, Isophthalic gel coats are unsurpassed in the FRP industry for their superior properties. HK Research Corporation's Isophthalic gel coats are especially recommended for use in sanitary-ware applications where they far exceed the applicable standards for these gel coats.

HK Research Isophthalic gel coats meet and surpass the tests applicable to American National Standard, ANSI Z124.1-1980 and Z124.2-1980. These tests include a water-resistance test, involving exposure to boiling water for 100 hours; a color fastness test, involving exposure in a Weather-Ometer for 200 hours; a stain resistance test, involving contact with shoe polish, ink, gentian violet, iodine, hair dye, lipstick and crayon for 16 hours; and a cleanability and wear test, involving scrubbing with a brush and a slurry of an abrasive cleaner for 10,000 cycles.

HK Research Gel Coats are available in standard white as well as the standard sanitary-ware colors. Typical properties of this family of high quality gel coats are as follows:

TYPICAL PROPERTIES OF UNCATALYZED GEL COATS

	A SERIES	
	White & Pastel Colors	**Translucent & Deep Colors**
Weight/Gallon @ 77°F:	10.4 - 10.8 lbs	9.5 - 9.9 lbs
Specific Gravity g/cc @77°F:	1.25 - 1.30	1.14 - 1.19
Viscosity, cps @ 77°F.:		
6 rpm:	12,000 - 16,000	12,000 - 16,000
60 rpm:	2,200 - 2,800	2,200 - 2,800
Shelf Life @ 77°F, Uncatalyzed:	3 months minimum	3 months minimum
Catalyzed, 2% MEKP*:	8 - 16 minutes	8 - 15 minutes

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*Reichhold 46-702 , 100 gram mass.

APPPLICATION

HK Research Corporation's "A" Series Isophthalic Based Gel Coats are formulated for standard conventional spray application as well as "air-less" application. These high performance gel coats require careful application in order to maximize the properties in the cured gel coat film. Poor application of the "A" series Isophthalic gel coat systems will cause a reduction in the properties of the cured gel coat film.

MIXING

Prior to removal from the shipping container and catalyzation, it is recommended that the materials be mixed thoroughly to reincorporate any "settled" or "stratified" material. It is further recommended that the material in the shipping container be mixed at least once a week during its use period. This mixing procedure would assure the most uniform properties during application of the gel coat. Mechanical mixing is recommended and should be sufficient to "turn" the material 10 times. Most common gel coat mixing equipment will accomplish an adequate blend in less than 1/2 hour.

DO NOT MIX MATERIAL CONTINUOUSLY!---As this may cause loss of thixotropic properties. If gel coat is inadvertently over-mixed, hold material for 4 hours without agitation before application.

It is suggested that the catalyst concentration used in the application of "A" Series Isophthalic Based Gel Coats not exceed 3.0% or fall below 1.5% to retain maximum properties. The recommended range for the catalyst concentration within the applied film is 1.8 to 2.2% at 77^{o}F.

Under normal conditions the gel coat is ready to "lay up" in 30 to 45 minutes. The "time to laminate" is dependent on the room temperature, humidity and air movement, as well as the catalyst concentration and the film thickness. A wet film thickness of at least 18 to 20 mils is recommended for proper hiding, cure, and performance properties. These products should not be used when the temperature conditions, both mold and ambient, are below 65^{o}F as the curing may be adversely affected.

SAFETY CONSIDERATIONS

"A" Series Isophthalic gel coats are based upon 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.