

# Product Data



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## **LHA-2900 LOW HAP WHITE Hybrid-ISO GEL COAT**

- **EMISSION REDUCTION OF 25% CAN BE EXPECTED**
- **EXCELLENT HANDLING CHARACTERISTICS**
- **MEETS ANSI Z-124 SERIES FOR UV RESISTANCE**
- **SUPERIOR WATER RESISTANCE IN MARINE APPLICATIONS**

HK Research Corporation's White Hybrid Isophthalic Gel Coats are unsurpassed in the Marine, Cultured Marble and general duty Composites industry for their superior properties. The hybrid Isophthalic resin backbone provides this product with unique physical characteristics. These unsurpassed Gel Coat systems provide the Marine manufacturer with a hard, stain and abrasion resistant surface for their products...while reducing their overall emissions.

LHA-Series is formulated to offer an excellent film cure, which in turn, helps to assure maximum physical properties of the finished composite product such as resistance to such common cure-related problems as staining, blistering, thermal shock cracking, profile distortion and premature yellowing. The LHA-Series provides the Composites manufacturer with a general duty Gel Coat that will provide good weathering and outstanding profile characteristics.

### **PROCESSING PROPERTIES**

The handling characteristics of HK Research White hybrid Isophthalic gel coats are unmatched for their ease of application, quick leveling, air release, and rapid cure.

HK Research also manufactures a series of tinted hybrid Isophthalic Gel Coats that allows the use of these exceptional materials under most conditions. To establish the correct material for your manufacturing equipment and conditions, please contact our representative or our technical service laboratories at 1-800-334-5975 or 828-328-1721. You may also e-mail us at [www.hkresearch.com](http://www.hkresearch.com).

## TYPICAL PROPERTIES OF LIQUID GEL COAT

### LHA-2900

<b>Weight/Gallon @ 77°F:</b>	11.70 pounds
<b>Specific Gravity @ 77°F:</b>	1.41
<b>Viscosity, Brookfield</b>	
@ 77°F @ 6 rpm:	14,000-18,000 cps
@ 60 rpm:	2,200-2,900 cps
<b>Thixotropic Index:</b>	5.5 – 7.0
<b>Gel Time, 100 Grams</b>	
@ 77°F, 2% MEKP:	15 - 20 minutes
<b>Shelf Life -</b>	
<b>Uncatalyzed, @ 77°F:</b>	3 months minimum

### APPLICATION

HK Research Corporation's "LHA" series White Gel Coats are formulated for standard conventional spray application as well as "low pressure-air assisted" application. Most of the systems are suitable for use in Non-Atomized impingement equipment. These high performance Gel Coats require careful application in order to maximize the properties in the cured gel coat film. Poor application of the "LHA" series White Gel Coat systems will cause a reduction in the properties of the cured gel coat film.

Typical cured film properties that can be expected from these gel coats when applied as directed include the following:

#### @ 77°F, 2% MEKP

Film Gel Time	30-45 minutes
Cure Time to laminate	45-60 minutes
Barcol Hardness, Cured Film	40+ units

### 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. The 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.

**MIXING**  
(Continued)

***DO NOT MIX MATERIAL CONTINUOUSLY!---As this may cause loss of thixotropic properties. If the 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 the "LHA" series White hybrid Isophthalic 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°F.

Recommended catalysts are NORAC MEKP-9, Superox 46-702 and Cadox L-50a. Call HK's Lab for other recommendations.

Under normal conditions, the gel coat is ready to "laminate" in 45 to 60 minutes depending on the system that is used. The "time to pour" 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 20 to 25 mils is recommended for optimum properties. These products should not be used when the temperature conditions, both mold and ambient, are below 65°F. as the curing may be adversely affected.

**SAFETY CONSIDERATIONS**

"LHA" series White hybrid Isophthalic Gel Coats is based on a resin that 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 the 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.