Product Data

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LHM-SERIES
HydroShield® LITE SERIES
GEL COATS

- **LOW STYRENE (HAP) LEVEL - LESS THAN 33%**
- **THESE PRODUCTS WILL LOOK "LIKE NEW" AFTER MANY YEARS OF USE!**
- **FORMULATED INTO WHITE, AND VARIOUS COLORS**
- **GOOD-EXCELLENT UV RESISTANCE**
- **HIGH STRENGTH AND HARDNESS**
- **EXCELLENT APPLICATION PROPERTIES**

The LHM HydroShield® LITE Series Gel Coats are based on HK's unique Acrylic Modified Hybrid Polymer backbone and are formulated to meet the need for high quality marine and general exterior gel-coated FRP applications. HK Research HydroShield® LITE gel coats have HAP contents below the EPA Boat MACT maximum, are blush resistant, have excellent performance on exposure to UV, are very user friendly (flow, leveling and air release), and are easily repaired.

The LHM HydroShield® LITE Gel Coat series handling characteristics make this the easiest to use Marine Gel Coat in the industry. The LHM-Series HydroShield® LITE Gel Coats fall well below the HAP Limits imposed by "**40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing; Final Rule".**

The information and data given in this bulletin are based on tests, which are considered to be reliable and accurate. Because of environmental conditions beyond our control, however, no warranty is given concerning the results obtained by the user of HK Research products. Each user should satisfy himself, by adequate testing, of the suitability of HK Research products for his particular application.

TYPICAL PROPERTIES OF LIQUID GEL COAT

Total HAP Content:	< 33 %
Weight/Gallon @ 77°F:	9.8-11.30 pounds
Specific Gravity @ 77°F:	1.18-1.36
Viscosity, Brookfield	
@ 77°F @ 6 rpm:	14,000-20,000 cps
@ 60 rpm:	2,000-3,200 cps
Thixotropic Index:	5.5 – 6.5
Gel Time, 100 Grams	
@ 77°F, 2% MEKP:	22 – 28 minutes
Shelf Life -	
Uncatalyzed, @ 77°F:	3 months minimum

TYPICAL MECHANICAL PROPERTIES OF CURED GEL COAT (Polymer Base)

Tensile strength	11600 psi
Tensile modulus	547,000 psi
% Tensile elongation	3.8%
Flexural strength	18,450 psi
Flexural modulus	545,000 psi
Heat Distortion Temp, F	174 degrees

APPLICATION

HK Research Corporation's LHM-Series HydroShield® LITE Gel Coats are formulated for standard conventional spray application as well as "air-less" application. Most of the systems are suitable for use in standard "air-less equipment" or the currently available "low pressure-air assisted" airless type 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 LHM-Series HydroShield® LITE 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. 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.

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 LHM-Series HydroShield® LITE 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 or RCI 46-702. Call HK's Lab for other recommendations.

SAFETY CONSIDERATIONS

LHM-Series HydroShield® LITE gel coats are 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.