Product Data

908 LENOIR ROAD • POST OFFICE BOX 1809
HICKORY, NORTH CAROLINA • 28603-1809
TELEPHONE (828) 328-1721
TOLL FREE (800) 334-5975
FAX (828) 328-4572

LHM-3500
LOW HAP BLACK
HydroShield® LITE
NPG/ISO MARINE GEL COAT

- **LOW STYRENE (HAP) LEVEL - LESS THAN 32%**
- **NPG/ISOPHTHALIC FOR EXCELLENT BLISTER RESISTANCE**
- **EXCELLENT UV RESISTANCE**
- **HIGH STRENGTH AND HARDNESS**
- **EXCELLENT APPLICATION PROPERTIES**
- **USES NEW CHEMISTRY TO ACHIEVE UNIQUE PROPERTIES**

HK Research Corporation's Black NPG-ISO Gel Coats are unsurpassed in the Marine Industry for their superior properties. The 100% NPG-Isophthalic resin backbone provides this hybrid product with unique physical characteristics. These unsurpassed Gel Coat systems provide the Marine Industry with a hard stain and abrasion resistant surface. We do not recommend this product for constant water contact.

PROCESSING PROPERTIES

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

HK Research manufactures a series of Black Marine Gel Coats that allows the use of this exceptional material 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.

TYPICAL PROPERTIES OF LIQUID GEL COAT

LHM-3500

Weight/Gallon @ 77°F:	10.6 pounds
Specific Gravity @ 77°F:	1.27
Viscosity, Brookfield	
@ 77°F @ 6 rpm:	10,000-14,000 cps
@ 60 rpm:	2,000-2,600 cps
Thixotropic Index:	5.0 – 7.0
Gel Time, 100 Grams	
@ 77°F, 2% MEKP:	15 - 20 minutes
Shelf Life -	
Uncatalyzed, @ 77°F:	3 months minimum

TYPICAL MECHANICAL PROPERTIES OF CURED GEL COAT (Polymer Base)

Tensile strength	**11,600 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 Black 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 Black 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.

MIXING
(continued)

It is suggested that the catalyst concentration used in the application of the "LHM" series NPG-ISO Black 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.

Recommended catalysts are NORAC MEKP-9 or RCI 46-702. HK Research cannot guarantee similar results with any other catalyst.

SAFETY CONSIDERATIONS

"LHM" series NPG-ISO Black 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.