

# 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

## R0075

## CRYSTAL CLEAR CASTING RESIN

### FEATURES

\*\* LOW VISCOSITY \*\*

\*\* SUPERIOR COLOR AND CLARITY \*\*

\*\* 100% NPG/ISO RESIN FOR TOUGHNESS AND CHEMICAL RESISTANCE \*\*

\*\* UV LIGHT-STABILIZED \*\*

\*\* OUTSTANDING LIGHT TRANSMISSION PROPERTIES \*\*

HK Research Corporation laboratories have developed a virtually water-white, crystal clear casting resin for use in the hobby casting industry or any other casting application where a crystal clear, water-white resin system is required. This resin is formulated from a 100% NPG/Isophthalic resin base that offers outstanding toughness and chemical resistance properties to the finished part.

R0075 Crystal Clear Casting Resin is UV light-stabilized to help maintain its color and clarity for many years.

### TYPICAL PROPERTIES OF LIQUID RESIN

Color	Light Violet
Viscosity, Brookfield, 77°F	500 - 700 cps
Weight per Gallon	8.8 - 8.9 lbs.
Specific Gravity, 77°F	1.05 - 1.07
Shelf Life, 77°F, uncatalyzed	3 months minimum

page 1 of 3  
HKR061-030290rev

## TYPICAL CURING PROPERTIES

Gel Time, 77°F 1.0% RCI 46-702 MEKP	10 - 15 minutes
Gel to Peak	25 - 35 minutes
Peak Exotherm, 100 gram mass	310 - 340°F

<u>% MEKP</u>	<u>GEL TIME</u>	<u>DEMOLD TIME</u>
1.00	12 minutes	50 - 60 minutes
0.75	18 minutes	80 - 90 minutes
0.50	28 minutes	110 - 130 minutes

## APPLICATIONS

R0075 can be used to produce small to medium sized crystal clear castings from molds made of FRP, glass, metal or silicone rubber. For best results we do not recommend casting R0075 in thicknesses greater than 1 1/2 inches or masses greater than 10 ounces. It may well be possible to make castings larger than this by reducing the catalyst and cooling the molds but our experience has been that castings larger than outlined above tend to crack and discolor due to the highly reactive resin used in the systems.

R0075 Crystal Clear Casting Resin is supplied at a viscosity low enough to facilitate the release of most, if not all, of the air bubbles. Care should be taken, however, to minimize mixing excessive air into the resin when adjusting temperature or dispersing the peroxide hardness.

R0075 can be used for embedding specimens such as coins, shells or other artifacts. One technique that we have found practical is to determine the total amount of resin necessary to fill the chosen mold. Add the catalyst or hardener to this resin and pour approximately one-half the resin into your mold. Immediately refrigerate the remaining catalyzed resin. As soon as the resin in the mold gels to a firm stage place the artifact to be embedded face down on the resin surface taking care to work all the air bubbles out. Remove the remaining catalyzed resin from the refrigerator and pour into the mold covering the artifact. When the casting is completely gelled the artifact should be sealed in the clear casting resin with no visible sign of a seam line between the two pours.

## **SAFETY CONSIDERATION**

HK Series Isophthalic Casting Systems 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 resin 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.