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Advanced Materials

RenCast® 140 / Ren® 140

WATER-CLEAR EPOXY CASTING SYSTEM

DESCRIPTION:

RenCast® 140 (Resin) / Ren® 140 (Hardener) is a water-clear epoxy casting resin. RenCast® 140 features an extended pot life and low mixed viscosity.

APPLICATIONS:

RenCast® 140 is useful for casting thicknesses of ½ - ¾". . RenCast® 140 can also be tinted to provide colored castings.

MIXING INTRUSCTIONS:

Reaction Ratio	100 Resin to 25 Hardener by weight 100 Resin to 30 Hardener by volume

Mixing: Stir each component thoroughly before use. Weigh each component accurately (± 5%) into clean containers. Thoroughly mix resin and hardener together (minimum 3 minutes) scraping container sidewalls, bottom and mixing stick several times to assure a uniform mix.

TYPICAL MIXED PROPERTIES:

Property		**ASTM Test Method**	**Test Values[1]**
Gel Time, (4 fl. oz.)		D-2471	40 min.
Color	Resin	Visual	Clear
	Hardener		Clear
	Mixed		Clear
Viscosity, mixed		D-2393	1300 cP

(1) Tested @ 77 °F (25 °C)

TYPICAL CURED PROPERTIES:

Property	ASTM Test Method	Test Values[2]
Specific Gravity	D-792	1.09
Notched Izod Impact (ft-lbs/in)	D-256	.55
Hardness (Shore D)	D-2240	80
Ultimate Tensile Strength (psi)	D-638	9,500
Tensile Elongation (%)	D-638	4.5

(1) Cure Schedule – 7 days @ 77 °F (25 °C), tested @ 77 °F

NOTE : Typical Properties – These physical properties are reported as typical test values obtained by our test laboratory. If assistance is needed establishing product specifications, please consult with our Quality Control Department.

CURING INSTRUCTIONS :

Although room temperature epoxy will normally set up to a rigid, demoldable state within 24 hours at room temperature (75°F ± 5°F), these systems reach their full cure after seven days at room temperature. A full cure can be accelerated by applying heat after the part has set rigid. We recommend a postcure of 150°F for a minimum of six hours. (Add to this adequate time to bring the part to the postcure temperature.) After cure, the part should be cooled at a slow rate so as not shick the part thermally. For best results, parts should be supported during postcure.

Uniform heat distribution is also required during postcure ; concentrated heat, such as that directed from a lamp, can cause warp. An elevated temperature cure will slightly increase the shrinkage compared to a room temperature cure.

Note that castings of RenCast® 140 which are thinner than 1/8” should be cured at 100-150°F to achieve best results.

HANDLING :

RenCast® 140 (Resin) / Ren® 140 (Hardener)

Work in a well ventilated area and use clean, dry tools for mixing and applying For two component system, combine the resin and hardener according to mix ration. Mix together thoroughly and use immediately after mixing. Material temperature should not be below 18 °C (65 °F) when mixing.

This product may crystallize upon storage. If crystallized, vent container and heat to 125 – 145 °F until crystals dissolve. Stir well after product has liquefied.

Stir well before use. This material will separate.

STORAGE AND SHELF LIFE:

RenCast® 140 (Resin) / Ren® 140 (Hardener) should be stored in a dry place, in the sealed original container, at temperatures between +2°C and +40°C (+35.6°F and 104°F). Under these storage conditions, the shelf life is 9 months. The product should not be exposed to direct sunlight.

PRECAUTIONARY STATEMENT:

Huntsman Advanced Materials Americas LLC maintains up–to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

First Aid!
Refer to MSDS as mentioned above.

KEEP OUT OF REACH OF CHILDREN

FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

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The manufacture of materials is the subject of granted patents and patent applications; freedom to operate patented processes is not implied by this publication.

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