



Product Data

PROVISIONAL DATA SHEET

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 1/2-3/4". RenCast 140 can also be tinted to provide clear colored castings.

MIXING INSTRUCTIONS: 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 ($\pm 5\%$) 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 Hardener Mixed	Visual	Clear Clear Clear
Viscosity, Mixed	D-2393	1300 cP

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

¹Tested @ 77°F (25°C)

²Cure 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 in 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 to shock 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.

STORAGE/HANDLING INFORMATION:

RenCast 140/Ren 140

Store at 60-100°F in a dry place. After use tightly reseal.

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 ratio. Mix together thoroughly and use immediately after mixing. Material temperature should not be below 65°F (18°C) 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.

SHELF LIFE: Provided materials are stored under the recommended storage conditions in their original containers, they will remain in useable condition for at least one year from date of shipping.

PACKAGING: This product is available in the following package size(s):

- Kit of Small Pail Resin with appropriate Hardener – Total weight = 10#
- Pail Resin (45#), with appropriate Hardener (11.25#)

Please call Customer Service (800-367-8793) for price and availability.

SAFETY/HANDLING PRECAUTIONS: Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

RenCast 140

DANGER! CORROSIVE – Causes eye burns and skin irritation. May cause allergic skin reaction.

Do not get in eyes, on skin, or on clothing.
Avoid breathing vapor or mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

SAFETY/HANDLING PRECAUTIONS continued
Ren 140

DANGER! CORROSIVE – Causes eye and skin burns. Harmful if absorbed through skin.
Do not get in eyes, on skin, or on clothing.
Avoid breathing vapor or mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

Nuisance dust may be generated when sanding or sawing cured material.

FIRST AID: In case of contact with:

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

Eyes: Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion: If conscious, give plenty of water to drink. Do not induce vomiting. Call a physician.

Inhalation: Remove to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Other: Referral to physician is recommended if there is any question about the seriousness of any injury.

PRECAUTIONARY NOTE: Thermosetting systems generate heat when curing. The amount of heat and the period of time in which heat is released vary significantly between systems. Additionally, ambient or compound temperature, amount of material mixed, and construction and shape of the mold or container can also be factors in the temperature profile of a mixed system. In some cases, the thermosetting reaction can be vigorous, generating heat sufficient to cause decomposition of the system with subsequent liberation of large volumes of acrid smoke.

A good rule of thumb is never mix more material than can be applied during the stated pot life or gel time. Also take care when using materials in applications other than stated on the Product Data Sheet, i.e., a laminating resin for casting.

Please feel welcome to call our Product Information Department or your local Ren representative for instructions before you start your job.

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