

Advanced Materials**RenCast[®] 3253-3 / Ren[®] 3253-3**

EPOXY, IRON-FILLED THIN SECTION CASTING, BLACK

DESCRIPTION :

RenCast[®] 3253-3 (Resin) / Ren[®] 3253-3 (Hardener) is a black, iron-filled epoxy casting system designed for castings up to ¾ inch thick. This compound is internally lubricated to aid in applications where surface abrasion and wear resistance are of consideration.

APPLICATIONS :

- Dies
- Punches
- Hammer forms
- Core boxes

MIX RATIO :

Reaction Ratio 100R to 6H by wt.
 100R to 17H by vol.

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	80 – 100 min.
	(14 fl. Oz.)		55 – 65 min.
Color Mixed		Visual	Black
Viscosity		D-2393	10,500 cP

⁽¹⁾ Tested @ 77 °F (25 °C)

TYPICAL CURED PROPERTIES :

Property	ASTM Test Method	Test Values⁽¹⁾
Specific Gravity	D-792	2.57
Cubic inch per lb.	D-792	10.8
Hardness (Shore D)	D-2240	90
Ultimate Compressive Strength (psi)	D-695	14,780
Compressive Modulus (psi)	D-695	1.0 x 10 ⁶
Ultimate Flexural Strength (psi)	D-790	9,020
Ultimate Tensile Strength (psi)	D-638	6,790
Tg per DMA	D-4065	172 °F (78 °C)
Deflection Temperature (264 psi)	D-648	140 °F
Coefficient of Thermal Expansion (in/in/°F)	D-3386	2.01 x 10 ⁻⁵
Shrinkage (in/in) Cast Mold #2	D-2566	0.0007
Izod Impact	D-256	0.493 ft-lb/in.

⁽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 epoxies will normally set up to a rigid, demoldable state within 24 hours at room temperature (75 °F ± 5%), 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 post cure of 150 °F for a minimum of six hours. (Add to this adequate time to bring the part to the post cure temperature.) After cure, the part should be cooled at a slow rate so as not to shock the part thermally.

Uniform heat distribution is also required during post cure ; 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.

STORAGE/HANDLING INFORMATION :**RenCast® 3253-3 / Ren® 3253-3**

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

Ren® 3253-3

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) :

Small Units : 6 qt. Resin / 6 pre-weighed hardener

Pail Units : Pail resin with appropriate hardener

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® 3253-3

WARNING Causes skin and eye irritations. May cause allergic skin reaction. Avoid contact with eye, skin, or clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Ren® 3253-3

DANGER CORROSIVE – Causes eye burns 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.

PRECAUTION 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, generation 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.

Caution To protect against any potential health risks presented by our products, the use of proper personal protective equipment (PPE) is recommended. Eye and skin protection is normally advised. Respiratory protection may be needed if mechanical ventilation is not available or is insufficient to remove vapors. For detailed PPE recommendations and exposure control options consult the product MSDS or a Huntsman EHS representative.

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