

**Advanced Materials****RenCast<sup>®</sup> 3253 / Ren<sup>®</sup> 3253 System**

## SURFACE CAST OR CASTING SYSTEMS

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**DESCRIPTION :**

RenCast<sup>®</sup> 3253 (Resin) / Ren<sup>®</sup> 3253 (Hardener) is a black, iron-filled epoxy casting system designed for castings up to ¾ inch thick. It provides excellent wear resistance in applications subject to high wear or surface abrasion.

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**APPLICATIONS :**

- Dies
- Punches
- Core boxes
- Hammer forms

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**MIX RATIO :**

	Resin / Hardener	
Reaction Ration	(weight)	100/5
	(volume)	100/16

**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.

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**TYPICAL MIXED PROPERTIES :**

Property		ASTM Test Method	Test Values <sup>(1)</sup>
Gel Time	(4 fl. Oz.)	D-2471	100 min.
	(14 fl. Oz.)		34 min.
Viscosity		D-2393	7500 cP

<sup>(1)</sup> Tested @ 77 °F (25 °C)

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**TYPICAL CURED PROPERTIES :**

<b>Property</b>	<b>ASTM Test Method</b>	<b>Test Values<sup>(1)</sup></b>
Specific Gravity	D-792	2.99
Hardness (Shore D)	D-2240	90
Ultimate Compressive Strength (psi)	D-695	15,200
Ultimate Flexural Strength (psi)	D-790	8,500
Ultimate Tensile Strength (psi)	D-638	7,100
Deflection Temperature (264 psi) (°F)	D-648	120
Shrinkage (in/in) Mold #1	ERF 12-74	0.002
Coefficient of linear thermal expansion (in/in/°F)	D-696	3.23 x 10 <sup>-5</sup>
Water absorption		
2 hrs. Water boil		0.354 %
24 hrs. @ R.T.		0.069 %
7 days @ R.T.		0.191 % in/lb
Volumetric weight	D-792	9.3 cu-in/lb

<sup>(1)</sup> 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.

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**SAFETY/HANDLING PRECAUTIONS :**

Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

**RenCast® 3253**

**WARNING COMBUSTIBLE** - Causes skin and eye irritation. May cause allergic skin and respiratory reaction.

Keep away from heat and flame. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

**Ren® 3253**

**DANGER CORROSIVE** – Causes eye and skin burns. May cause allergic skin and respiratory 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.

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

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**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.

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**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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