



Product Data

Ren[®]
Professional Tooling Line

RenPaste[™] 8281/Ren[®] 8281

**LOW-DENSITY EPOXY BACKFILL SYSTEM
 WITH ROOM-TEMPERATURE PERFORMANCE AND LOW-SHRINKAGE**

DESCRIPTION: RenPaste 8281(Resin)/Ren 8281(Hardener) low-density backfill system is a pre-filled formulation containing microballoon-filler for casting up to 8 inches at once. This system when used with RenGel 8024 surface coat provides a quick, easy method for building low-cost, lightweight tools, molds, and fixtures.

MIX RATIO:

	By Weight:	By Volume:
Resin to Hardener	100 to 100	100 to 100

TYPICAL HANDLING PROPERTIES*:	ASTM Method	Resin	Hardener	Mixed
Color	Visual	Blue	Tan	Light blue
Specific Gravity	D-1963	0.60	0.47	
Gel Time, 14 fl. oz, hours	D-2471			1.5–2.75

NOTE: 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 Product Management Department.

RECOMMENDED CURE SCHEDULE: 1. 77°F (25°C) at 7 days

TYPICAL CURED PROPERTIES*:	ASTM Method	Cure Value
Density, lb./ft ³ (g/cm ³)	D-792	37 (0.60)
Cubic Inch per Pound	D-792	46.2
Hardness, Shore D	D-2240	45
Ultimate Flexural Strength, psi	D-790	549
Flexural Modulus, psi	D-790	118,000
Ultimate Tensile Strength, psi	D-638	413
Deflection Temperature, °F(°C)	D-648	118 (48)
Ultimate Compressive Strength, psi	D-695	1,300
Coefficient of Thermal Expansion	D-3386	
		-22 to 86°F, in/in/°F
		-30 to 30°C, in/in/°C
Linear Shrinkage, in/in	D-2566	9.4 x 10 ⁻⁶
		16.9 x 10 ⁻⁶
		< 0.0002

* Tested @ 77°F (25°C) unless otherwise noted.

** Molds are half round steel, 10 inches long, 4.250 inches deep

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

RenPaste 8281

WARNING! Can cause skin irritation, eye irritation, and allergic skin reaction. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Ren 8281

DANGER! CORROSIVE. Causes eye burns. Causes severe skin irritation and may cause skin burns. Can cause allergic skin reaction. Can be harmful if absorbed through skin or if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Avoid tasting or swallowing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

NOTICE! Contains crystalline silica. Breathing dust may cause cancer and delayed lung injury.

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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