



Product Data

# RenGel™ 1118/Ren® 1118

## A Versatile Intermediate P&P Surface Coat

**DESCRIPTION:** RenGel 1118(Resin)/Ren 1118(Hardener) is a versatile, all-purpose surface coat designed primarily for use with plaster. Its light blue color provides a contrast to the plaster and the system offers excellent adhesion. This system may be used at temperatures up to 200°F (93°C) when postcured. (See curing instructions).

**APPLICATIONS:** RenGel 1118/Ren 1118 is recommended as a surface coat for plastic-faced plasters, as a general purpose, room temperature surface coat and as an intermediate heat-resistant system. It can be used for duplicator models, prototypes, dies, fixtures, molds, etc., and can be backed up by epoxy laminates and castings or plaster.

**MIXING INSTRUCTIONS:** Reaction Ratio 100R to 9H by weight  
100R to 13H 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 <sup>(1)</sup>
Gel Time (4 fl.oz.)	D-2471	30 min.
Color Resin Hardener Mixed	Visual	White Blue Light Blue
Mixed Sag	D-2730	Pass 1/16" Fail 1/8"

<sup>(1)</sup> Tested @ 77°F (25°C)

**TYPICAL CURED PROPERTIES:**

Property	ASTM Test Method	Test Values <sup>(1)</sup>
Specific Gravity	D-792	1.46
Cubic inch per lb.	D-792	19.0
Izod Impact (ft-lb/in)	D-256	0.5
Hardness (Shore D)	D-2240	90
Ultimate Compressive Strength (psi)	D-695	13,400
Ultimate Flexural Strength (psi)	D-790	6,500
Ultimate Tensile Strength (psi)	D-638	3,500
Deflection Temperature (264 psi)	D-648	235°F (113°C) <sup>(2)</sup>
Coefficient of Thermal Expansion (in/in/°F)	D-3386	2.56 x 10 <sup>-5</sup>
Shrinkage (in/in) (cast) (Mold #0)	D-2566	0.002

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

<sup>(2)</sup> 2 hrs. @ 200°F (93°C), 3 hrs. @ 325°F (163°C)

**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 epoxies 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 200°F for a minimum of six hours by heating to 150°F for two hours followed by 200°F for four 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.

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.

## **STORAGE/HANDLING INFORMATION:**

### **RenGel 1118 and Ren 1118**

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.

### **RenGel 1118**

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 Preweighed Units: 6 quarts resin/6 preweighed hardener (total weight 17.3#)  
Pail Units: Pail resin at 40# and gallon hardener at 3.6#

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.

### **RenGel 1118**

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

### **Ren 1118**

**DANGER! CORROSIVE** – causes skin and eye burns. Harmful if absorbed through skin. May cause allergic skin and respiratory reactions.

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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