

Advanced Materials**RenCast[®] 6434 / Ren[®] 6434 / Ren[®] 6434 Additive**

POLYURETHANE ELASTOMER
A VARIABLE HARDNESS RESILIENT SHORE 10 – 40A ELASTOMER

DESCRIPTION :

RenCast[®] 6434 (Resin) / Ren[®] 6434 (Hardener) / Ren[®] 6434 Additive, the most flexible polyurethane of the Polyurethane line, allows easy stripping of molds from undercuts and complex parts. Low viscosity makes RenCast[®] 6434 easy to handle. Complete cure can be obtained at room temperature.

APPLICATIONS :

- Flexible Molds
- Resilient Parts
- Pads

Note : Contains an ingredient not recommended for applications that might come in contact with human skin.

MIX RATIO :

By weight : 25 to 100 Resin to Hardener
By volume : 25 to 100 Resin to Hardener

Mixing Instructions : 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 HANDLING PROPERTIES :

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

| Property | Criteria | ASTM Test Method | Test Values |
|--------------------------------|----------|------------------|--------------------------|
| Color | Resin | Visual | Light amber |
| | Hardener | | Light amber |
| | Cured | | Light amber |
| Specific Gravity | Resin | D-792 | 1.18 |
| | Hardener | | 1.15 |
| Viscosity, cP | Resin | D-2393 | 50 |
| | Hardener | | 450 – 650 |
| Gel Time, minutes | 150 g | D-2471 | 14 – 20 |
| Gel Time and Viscosity Profile | 150 g | D-2471 | Minute |
| | | | cP |
| | | | 5 500 |

NOTE : 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.

PROCESSING :**Ren[®] 6434 Additive for Variable Hardness Shore 10 – 40A**

| <u>Hardness, Shore A</u> | <u>Parts by Weight</u> | |
|--------------------------|------------------------|-------------------------------|
| 35 – 40 | 25 to 100 to 0 | Resin to Hardener to Additive |
| 27 – 31 | 25 to 100 to 25 | Resin to Hardener to Additive |
| 17 – 21 | 25 to 100 to 50 | Resin to Hardener to Additive |
| 10 – 14 | 25 to 100 to 75 | Resin to Hardener to Additive |
| 4 – 8 | 25 to 100 to 100 | Resin to Hardener to Additive |

Mixing Instructions :

Weigh the resin and additive components and blend thoroughly. Add the appropriate amount of hardener by weight and blend for 3 minutes. Carefully scrape container walls and mixing utensils to fully blend all ingredients before use.

DEMOLD TIME :

| Temperature | Time | Thickness |
|--------------------|-------------|------------------|
| 77 °F (25 °C) | 24 hours | 1/8" |

RECOMMENDED CURE SHCHEDULE :

| Temperature | Time |
|--------------------|-------------|
| 77 °F (25 °C) | 7 days |

TYPICAL CURE PROPERTIES :

Cured 7 days @ 77 °F (25 °C)

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

| Property | ASTM Test Method | Test Value |
|--------------------------------|-------------------------|-------------------|
| Hardness (Shore A) | D-2240 | 35 -40 |
| Ultimate Tensile Strength, psi | D-412 | 1,100 |
| % Elongation | D-638 | 500 |
| Tear Strength, ppi | D-624 | 120 |

PACKAGING :

| Unit | | Weight |
|-------------|----------|---------------|
| A package | System | 10 lb. |
| Quart | Resin | 2 lb. |
| Gallon | Hardener | 8 lb. |
| Gallon | Resin | 8 lb. |
| 5 gallon | Hardener | 32 lb. |
| 5 gallon | Resin | 38.3 lb. |
| Drum | Hardener | 460 lb. |
| Gallon | Additive | 4.75 lb. |
| 5 gallon | Additive | 42 lb. |
| Drum | Additive | 400 lb. |

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

STORAGE :

Store at 70 to 90 °F. This product is moisture-sensitive and packaged under a blanket of dry nitrogen. Maintain factory seal, after use re-blanket with dry nitrogen and tightly reseal.

CONDITIONNING :**RenCast® 6434**

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.

RenCast® 6434 System

If heating of products in plastic packaging is necessary, heat in a ventilated oven to 145 °F maximum. Before heating loosen the container lid slightly to relieve any pressure buildup and place container to be heated into a metal bucket of sufficient volume to contain the product should the container tip over or leak.

HANDLING :

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.

SHELF LIFE :

Provided this material is stored under the recommended storage conditions in the original container, it will remain in useable condition for at least one year from date of shipping.

SAFETY :

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

RenCast® 6434

WARNING. Harmful if inhaled. Causes skin and eye irritation. Causes allergic skin and respiratory reactions. Avoid contact with eye, skin, and 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® 6434

WARNING. Harmful if swallowed. Wash thoroughly after handling.

Ren® 6434 Additive

WARNING Stir well before use. This material will separate.

FIRST AID :

In case of contact

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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