

**Advanced Materials****RenPaste<sup>®</sup> 177-62**

## LOW DENSITY TOOLING PASTE

**DESCRIPTION :**

RenPaste<sup>®</sup> 177-62 is a room temperature curing, low density, two-component syntactic epoxy paste. The resin and hardener are colored to insure a homogeneous mix. A mechanical mixer (such as a Hobart mixer or equivalent) is required for mixing together the resin and hardener. One of the major uses for TDT 177-62 is as a core material, sandwiched between two epoxy laminates for lightweight tooling.

**MIXING INSTRUCTIONS :**

Reaction Ration            100R to 25H by weight

**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 <sup>(1)</sup>
Gel Time (4 fl oz.)	D-2471	60 – 70 mins.
Color	Visual	White
		Yellow
		Light Yellow
Viscosity	D-2393	Paste

<sup>(1)</sup> Tested @ 77 °F (25 °C)

**TYPICAL CURED PROPERTIES :**

Property	ASTM Test Method	Test Values <sup>(1)</sup>	
		Paste Only	2-Ply Sandwich Construction
Cubic Inch per lb.	D-792	71.4	
Hardness (Shore D)	D-2240	50	
Ult. Compressive Strength (psi)	D-695	1,560	1,920
Ult. Flexural Strength (psi)	D-790	1,560	7,010
Ult. Tensile Strength (psi)	D-638	1,070	--
Deflection Temperature (264 psi) (°F)	D-648	138	151
Coefficient of Thermal Expansion	D-3386	1.76 x 10 <sup>-5</sup>	--
		3.17 x 10 <sup>-5</sup>	--
Izod Impact (ft-lb/in on notch)	D-256	0.104	--
Shrinkage (in/in)      Mold#1	D-2566	.0015	--

<sup>(1)</sup> Cure Schedule – 7 days room temperature

**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 °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 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.

**HANDLING :****TDT 177-62 Resin and Hardener**

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.

**TDT 177-62 Resin**

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.

---

**PACKAGING :**

This product is available in the following package size(s) :

- TDT 177-62 Resin, 6 bags, 12# total weight
- TDT 177-62 Hardener, 6 bags, 3# total weight

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

---

**STORAGE :**

RenPaste<sup>®</sup> 177-62 should be stored in a dry place, in the sealed original container, at temperatures between +2°C and +40°C (+35.6°F and 104°F). Under these storage conditions, the shelf life is 2 years. The product should not be exposed to direct sunlight.

---

**PRECAUTIONARY STATEMENT :**

Huntsman Advanced Materials Americas LLC maintains up-to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

**First Aid!**

Refer to MSDS as mentioned above.

**KEEP OUT OF REACH OF CHILDREN**

**FOR PROFESSIONAL**

---

**IMPORTANT LEGAL NOTICE**

Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications.

The manufacture of materials is the subject of granted patents and patent applications; freedom to operate patented processes is not implied by this publication.

WHILE ALL THE INFORMATION AND RECOMMENDATIONS IN THIS PUBLICATION ARE, TO THE BEST OF HUNTSMAN ADVANCED MATERIAL'S KNOWLEDGE, INFORMATION AND BELIEF, ACCURATE AT THE DATE OF PUBLICATION, nothing herein is to be construed as a warranty, whether express or implied, including but without limitation, as to merchantability or fitness for a particular purpose. In all cases, it is the responsibility of the user to determine the applicability of such information and recommendations and the suitability of any product for its own particular purpose.

The behavior of the products referred to in this publication in manufacturing processes and their suitability in any given end-use environment are dependent upon various conditions such as chemical compatibility, temperature, and other variables, which are not known to Huntsman Advanced Materials. It is the responsibility of the user to evaluate the manufacturing circumstances and the final product under actual end-use requirements and to adequately advise and warn purchasers and users thereof.

Products may be toxic and require special precautions in handling. The user should obtain Safety Data Sheets from Huntsman Advanced Materials containing detailed information on toxicity, together with proper shipping, handling and storage procedures, and should comply with all applicable safety and environmental standards.

Hazards, toxicity and behavior of the products may differ when used with other materials and are dependent on manufacturing circumstances or other processes. Such hazards, toxicity and behavior should be determined by the user and made known to handlers, processors and end users.

Except where explicitly agreed otherwise, the sale of products referred to in this publication is subject to the general terms and conditions of sale of Huntsman Advanced Materials LLC or of its affiliated companies including without limitation, Huntsman Advanced Materials (Europe) BVBA, Huntsman Advanced Materials Americas Inc., and Huntsman Advanced Materials (Hong Kong) Ltd.

Huntsman Advanced Materials is an international business unit of Huntsman Corporation. Huntsman Advanced Materials trades through Huntsman affiliated companies in different countries including but not limited to Huntsman Advanced Materials LLC in the USA and Huntsman Advanced Materials (Europe) BVBA in Europe.

RenPaste is a registered trademark of Huntsman Corporation or an affiliate thereof in one or more, but not all, countries.

Copyright © 2007 Huntsman Corporation or an affiliate thereof. All rights reserved.

Main Offices :

**Huntsman Corporation**  
10003 Woodloch Forest Dr.  
The Woodlands  
Texas 77380  
(281) 719-6000

**Huntsman Advanced Technology  
Center**

8600 Gosling Rd.  
The Woodlands  
Texas 77381  
(281) 719-7400  
Website :

[www.huntsman.com/advanced\\_materials](http://www.huntsman.com/advanced_materials)