

Epibond[®] 1544-1 A-82/D Epoxy Adhesive

Product Description

Epibond[®] 1544-1 A-82/D epoxy adhesive is a two-component beige paste. The epoxy adhesive is non-flowing on vertical surfaces and forms excellent bonds on metals, composite laminates, most thermoplastics, and many other dissimilar materials. Epibond[®] 1544-1 A-82/D epoxy adhesive can be used to fabricate or repair aircraft interior parts which fulfill the FAR 25.853 and O.S.U. requirements when used in conjunction with other low combustible composite components. This adhesive is also available in different colors (Epibond[®] 1544-1 A/C - Off-White, and Epibond[®] 1544-1 A-71/D - White).

Features

- Flame retardant
- Excellent gap filling properties
- Early green strength
- White

Typical Properties*

| Property | Test Method | 1544-1A-82 Resin | 1544-D Hardener | Mixed System |
|------------------------------|-------------|------------------|-----------------|--------------|
| Appearance | Visual | Beige | Cream | Beige |
| Density g/cm ³ | ASTM D792 | 1.30 | 1.0 | 1.25 |
| Viscosity at 77°F (25°C), cP | ASTM D2196 | 100000 | Paste | Semi-Paste |

*Typical properties are based on Huntsman's test methods. Copies are available upon request.

Processing

Mix Ratio

| Product | Parts by weight |
|----------------------------------|-----------------|
| Epibond [®] 1544-1 A-82 | 100 |
| Epibond [®] 1544-D | 13 |

Material temperatures should be above 18°C (65°F) when mixing. Mix the appropriate amounts of resin and hardener according to the above ratio (colored versions use the same mix ratio). Mix both components thoroughly for several minutes to assure complete blending. Avoid air entrapment during mixing.

Processing Data

| Parameter | Value |
|-----------------------------|----------------------------|
| Gel time, 100g at 77°F, min | 70 |
| Typical Cure Cycles | 24 h at 77°F or |
| | Gel at 77°F + 1 h at 150°F |

Typical Physical Properties

Unless otherwise stated, the data were determined with typical production batches using standard test methods. They are typical values only, and do not constitute a product specification.

| Property | Value | Test Method |
|---|--------------|-------------|
| Tensile lap shear strength, psi (MPa) | | ASTM D1002 |
| Al-Al after 24 hours at 77°F | 2,400 (18.5) | |
| Al-Al after 20 min at 250°F | 3,050 (21.0) | |
| Al-Al after 7 days immersion in Jet-A | 2,400 (18.5) | |
| Al-Al after 7 days immersion in water | 1,870 (12.9) | |
| Al-Al after 7 days immersion in Mil-S-3136 Type III fluid | 2,600 (18.0) | |
| Flammability*, 12 sec ignition | | |
| Self-extinguishing time, sec | <1 | -- |
| Burn length, inch | 3.0 | |
| Drip extinguishing time, sec | No drip | |

*With glass cloth, 60-second ignition, vertical.

Storage

Epibond® 1544-1 A-82/D Adhesive should be stored in a dry place in its original sealed container at temperatures between 2°C and 40°C (36°F and 104°F). Tightly reseal containers after each use. Under these storage conditions, and when supplied under Huntsman standard certification, the product has a shelf-life of **2 years** (from date of manufacture). The components should not be exposed to direct sunlight.

Precautionary Statement

Huntsman Advanced Materials Americas LLC maintains up-to-date Safety Data Sheets (SDS) 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 SDS as mentioned above.

KEEP OUT OF REACH OF CHILDREN

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