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Description

Hysol[®] EA 9396.6MD

Epoxy Paste Adhesive

Hysol EA 9396.6MD is an easy mixing, two-part syntactic epoxy adhesive with good compressive strength at higher temperatures. Hysol EA 9396.6MD can be cured at room temperature (77°F/25°C).

Features

Good High Temperature Properties Easy to Mix Low Density Good for Potting, Edge Filling

Uncured Adhesive Properties

| Uncured Adhesive Properties | | | |
|-----------------------------|------------|-----------|------------|
| | Part A | Part B | Mixed |
| Color | Light Blue | White | Light Blue |
| Density (g/ml) | 0.60-0.65 | 0.48-0.53 | 0.55 |
| Shelf life | | | |
| @ <0°F/-18°C | 1 year | 1 year | |
| @ <40°F/4°C | 1 year | 6 months | |
| | | | |

Note: This material will normally be shipped at ambient conditions, which will not alter our standard warranty, provided that the material is placed into its intended storage upon receipt.

Handling

Mixing - This product requires mixing two components together just prior to application to the parts to be bonded. Complete mixing is necessary. The temperature of the separate components prior to mixing is not critical, but should be close to room temperature $(77^{\circ}F/25^{\circ}C)$.

| Mix Ratio | Part A | Part B |
|-----------|--------|--------|
| By Weight | 100 | 31 |

Note: Volume measurement is not recommended for structural applications unless special precautions are taken to assure proper ratios.

Pot Life (450 gm mass) 120 minutes Method - ASTM D2471 in water bath.

Application

Mixing - Combine Part A and Part B in the correct ratio and mix thoroughly. THIS IS IMPORTANT! Heat buildup during or after mixing is normal. Do not mix quantities greater than 450 grams as dangerous heat buildup can occur causing uncontrolled decomposition of the mixed adhesive. TOXIC FUMES CAN OCCUR, RESULTING IN PERSONAL INJURY. Mixing smaller quantities will minimize the heat buildup.

Applying - Bonding surfaces should be clean, dry and properly prepared. For optimum surface preparation consult the Hysol Surface Preparation Guide. The bonded parts should be held in contact until the adhesive is set. Handling strength for this adhesive will occur in 24 hours at 77°F/25°C, after which the support tooling or pressure used during cure may be removed. Since full bond strength has not yet been attained, load application should be small at this time.

Curing - This adhesive may be cured for 5 to 7 days at $77^{\circ}F/25^{\circ}C$ to achieve normal performance. Accelerated cures up to $200^{\circ}F/93^{\circ}C$ (for small masses only) may be used as an alternative. For example, 1 hour at $180^{\circ}F/82^{\circ}C$ will give complete cure.

Cleanup - It is important to remove excess adhesive from the work area and application equipment before it hardens. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive. Consult your supplier's information pertaining to the safe and proper use of solvents.

Bulk Resin Properties

Tensile Lap Shear Strength

Tensile lap shear strength tested per ASTM D1002 after curing for 5 days at 77°F/25°C. Adherends are 2024-T3 bare aluminum treated with phosphoric acid anodized per ASTM D3933.

| | Typical Results | |
|-------------------------------|-----------------|------|
| <u>Test Temperature °F/°C</u> | psi | MPa |
| 77/25 | 2,600 | 17.9 |

Compressive Properties – tested using 0.5 inch/12.7 mm castings per ASTM D695.

| | <u>psi</u> | <u>MPa</u> |
|------------------------------------|------------|------------|
| Compressive Strength @ 77°F/25°C | 3,800 | 26.2 |
| Compressive Strength @ 250°F/121°C | 2,000 | 13.8 |
| Compressive Strength @ 300F°/149°C | 1,500 | 10.3 |

Handling Precautions

Do not handle or use until the Material Safety Data Sheet has been read and understood. For industrial use only.

General:

As with most epoxy based systems, use this product with adequate ventilation. Do not get in eyes or on skin. Avoid breathing the vapors. Wash thoroughly with soap and water after handling. Empty containers retain product residue and vapors, so obey all precautions when handling empty containers. Hysol EA 9396.6MD Henkel Corporation Aerospace Group Page 3 of 3

PART A

CAUTION! This material may cause eye and skin irritation or allergic dermatitis. It contains epoxy resins. PART B

WARNING! This material causes eye and skin irritation or allergic dermatitis. It contains amines.

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Users should review the Materials Safety Data Sheet (MSDS) and product label for the material to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material. Copies of the MSDS and label are available upon request.



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