

**Plexus® HA2410(RD Sample)**

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**Two-component Hybrid & Flexible Adhesive**

**Product Description**

Plexus® HA2410 is two-component hybrid flexible adhesives with a unique combination of high elongation, high peel and shear strength. It provides a flexible bonding with a wide range of dissimilar materials, including metals, engineering composites, thermoplastics (PMMA, ABS, PA66 and PC), glass, etc. It also has other following features:

- Withstand severe thermal shock.
- Good ageing resistance and low moisture absorption.
- TVOC<50ppm & odor<3.5 @80C after E-coating process.
- Be particularly suitable for bonding materials with different CTE.

**Product Characteristics**

Chemical Class	Hybrid
Appearance(mixed)	Grey
Viscosity	Moderate
% Solids by Volume	100
Shelf life, mos	6
Service temperature, °C	-40~130

**Typical Properties of Uncured Materials**

**Part A**

Appearance	Black
Specific gravity@25 °C	1.25

**Part B**

Appearance	White
Specific gravity@25 °C	1.25

**Mixed**

Mix ratio, by vol, A to B	100:50
Mix ratio, by wt, A to B	100:50
Working time @ 25°C, mins	10-15

**Typical Cured Properties**

*The samples were prepared and cured at 25 °C for 168 hours.*

Density(cured), g/cm <sup>3</sup>	1.25
Hardness, Shore A	65
Tensile strength, MPa	>3.5
Elongation at break, %	>120

**Lap Shear Strength, MPa/Failure Mode**

AL/AL	3.8/CF
GS/GS	4.0/CF
SS/SS	3.8/CF
AL6061/AL6061	4.0/CF

**Lap shear strength at 180°C, MPa/Failure mode**

AL/AL	1.0/CF
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**TYPICAL CURING PROCESS**

**Important:** The cure of **Plexus® HA2410** can be affected and accelerated by elevated temperatures, typical curing process recommend as curing for 24 hours @25 °C followed by 4 hours @60 °C.

**STRENGTH AFTER AGEING**

The lap shear strength of bonded aluminum and aluminum will retain ≥2 MPa after coupons cured for 168 hours at 25 °C and then aged by thermal shock from -40~80 °C.

**PROCESSING**

The surfaces must be dry, degreased and dust free. The treatment may be varied according the substrate (solvent, paper sanding, degreasing, Corona treatment, cold plasma, etc.): consult with the technical service.

Mix well until the colors are homogenous (Different colors of A&B are designed to help judgment) with required static mixer. Apply mixed adhesive directly to the surface, then assemble with mating part within recommended working time (10-15 minutes). Apply firm pressure between mating parts to minimize any gap and ensure good contact, and then cure the sample as cure condition describes.

**PRECAUTIONS**

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

**STORAGE**

The product is sensitive to moisture in the air. Store the unopened product in a cool, dry, well ventilated location away from sources of moisture and heat. Optimal storage temperatures should range between 10 °C (50 °F) and 30 °C (86 °F). Product removed from the containers during use should not be returned to original containers in order to avoid potential contamination.

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### CONVERSIONS

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

### WARRANTY

ITW will replace any material found to be defective. Because the storage, handling and application of this material are beyond our control, we can accept no liability for the results obtained.

### NOTE

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For technical assistance, please call: 86-021-54265119

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