

Advanced Materials**Epibond® 1210-A Resin
Hardener 9861****EPOXY ADHESIVE**

- High Temperature Adhesive
- Low Outgassing
- One Hour Work Life

DESCRIPTION:

Epibond® 1210-A resin/Hardener 9861 epoxy adhesive is a two-part paste which gives good properties at temperatures up to 300°F (149°C). This adhesive product is ideal for spacecraft applications due to its low out-gassing properties. Epibond 1210-A resin/Hardener 9861 epoxy adhesive mixes to a semi-paste consistency and may be applied in glue lines of up to 50 mils for gap-filling applications. Epibond® 1210-A resin/Hardener 9861 epoxy adhesive bonds metals, composite laminates, most thermoplastics, rubbers and many other dissimilar materials. The epoxy adhesive is also available in different work life versions - Epibond® 1210A/B epoxy adhesive and Epibond® 1210-A resin/Hardener 9610 epoxy adhesive.

TYPICAL PROPERTIES AS RECEIVED:

<u>Property</u>	<u>1210-A Resin</u>	<u>9861 Hardener</u>	<u>1210-A/9861 System</u>	<u>Test Method</u>
Color	Tan	Amber	Tan	Visual
Density, g/cc.	1.49	1.00	1.35	ASTM-D-792
Viscosity, cP @ 77°F (25°C)	250,000	16,000	Semi-Paste	ASTM-D-2196
Gel time, 100 gms at 77°F (25°C), minutes	--	--	35-60	ASTM-D-2471

MIX RATIO :

To 100 parts by weight of Epibond 1210-A resin, add 20 parts by weight of Hardener 9861. Mix both components thoroughly for several minutes to assure complete blending.

CURE SCHEDULE :

48 hours at 77°F (25°C), or gel at room temperature plus one to two hours at 150°F (66°C). Elevated temperature properties are improved with post cure of one hour at service temperature.

TYPICAL CURED PROPERTIES (Not for specification purposes)

<u>Test</u>	<u>Result</u>	<u>Test Method</u>
Tensile lap shear: AL/AL at 77°F (25°C), psi (MPa)	2800 (19.3)	ASTM-D-1002
at 200°F (93°C), psi (MPa)	2500 (17.2)	--
at 300°F (149°C), psi (MPa)	500 (3.4)	--
After fluid immersion, 7 days at 75°F (23°C), psi (MPa)		ASTM-D-1002
JP-4	2700 (18.6)	--
Skydrol	2400 (16.5)	--
Distilled Water	2400 (16.5)	--
Outgassing: TML, %	0.77	ASTM-E-595
CVCM, %	0.00	

STORAGE:

Epibond® 1210-A and Hardener 9861 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). The product should not be exposed to direct sunlight. Under these storage conditions, and when supplied under Huntsman standard certification, this product has a shelf life of 1 year (expiration date may differ based on customer specification).

Material temperatures should be above 18°C (65°F) when mixing. After use, tightly reseal containers.

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

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