

**Advanced Materials****CG-1305 Resin/Hardener****EPOXY SYNTACTIC**

- Medium Density Syntactic
- High Strength
- Pourable

**DESCRIPTION :**

CG-1305 resin/hardener epoxy syntactic is a medium-density, pourable material for aircraft production and other industrial applications requiring high-strength and low weight. This system combines good handling and physical properties. CG-1305 resin/hardener epoxy syntactic is designed for reinforcing high stress areas in honeycomb structures and for potting applications. CG-1305 R/H epoxy syntactic is qualified to BMS 5-28, Type 7, Class 1.

**TYPICAL PROPERTIES AS RECEIVED :**

<u>Property</u>	<u>Resin</u>	<u>Hardener</u>	<u>Mixed</u>	<u>Test Method</u>
Color	White	Amber	Off-White	Visual
Density, g/cc	0.82	0.98	0.90 max.	ASTM-D-792
Viscosity, cP at 77°F (25°C)	90,000	450	21,500	ASTM-D-2196
Gel Time, 60 g mass at 77°F (25°C)	--	--	>60 min.	ASTM-D-2471
Shelf life at 77°F (25°C), unopened, months	12	12	--	--

**MIX RATIO :**

To 100 parts by weight of CG-1305 resin, add 20 parts by weight of CG-1305 hardener. Mix both components thoroughly for several minutes to insure complete and uniform mixing.

**CURE SCHEDULE :**

Cure #1 - 7 Days @ 77±2°F (25°C ±1°C)

\*Cure #2 - Gel @ Room Temperature + 90 minutes @ 260±10°F (127°C±6°C)

Cure #3 - Gel @ Room Temperature + 60 minutes @ 350±10°F (177°C ±6°C)

\*Optimum cure

**TYPICAL CURED PROPERTIES (Not for specification purposes)**

<u>Test</u>	<u>Result</u>	<u>Test Method</u>
Compressive strength/modulus, Ksi (MPa)		
after 7 days at 77±2°F (25°C±2°C)	8.5/400 (58.6/2,758)	ASTM-D-695
after R.T. gel + 90 minutes at 260°F±10°F (127°C±6°C)	8.8/420 (60.7/2,896)	--
after R.T. gel + 60 minutes at 350°F (177°C)	9.0/450 (62/3,103)	--
Lap shear, AL/AL, psi (MPa)		
after 7 days at 77±2°F (25°C±1°C)	1500 (10.3)	ASTM-D-1002
after R.T. gel + 90 minutes at 260±10°F (127°C±6°C)	1800 (12.4)	--
after R.T. gel + 60 minutes at 350±10°F (177°C±6°C)	1800 (12.4)	--
Weight gain % after 24 hour immersion		
TT-S-735 test fluid	0.30	ASTM-D-543
Mil-M-5606 hydraulic fluid	0.40	--
Skydrol 500	0.60	--
Distilled water	0.50	--
Flammability, Burn Rate, in./min. (cm/min), max.	3 (7.6)	--
12 second vertical burn		

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**STORAGE/** Syntactic epoxy resins and hardeners should be stored in a dry place in their original, sealed

**SHELF LIFE :** containers at temperatures from 60-90°F (16-32°C). Material temperatures should be above

65°F (18°C) when mixing. After use, tightly reseal containers. Frozen materials should be stored at 0°F (-18°C) or colder and allowed to thaw at room temperature before use.

Under these conditions, syntactic epoxy resins and hardeners will remain useable for 12 months from date of shipping from Huntsman.

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**CAUTION :**

Huntsman Advanced Materials Americas Inc. 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. Copies of the latest MSDS may be requested by calling our customer service group at 800-367-8793 or emailing your request to [adhesives\\_group@huntsman.com](mailto:adhesives_group@huntsman.com).

**FIRST AID !**

Eyes and skin: Flush eyes with water for 15 minutes. Contact a physician if irritation persists. Wash skin thoroughly with soap and water. Remove and wash contaminated clothing before reuse.

Inhalation: Remove subject to fresh air.

Swallowing: Dilute by giving water to drink and contact a physician promptly. Never give anything to drink to an unconscious person.

**KEEP OUT OF REACH OF CHILDREN****FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

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