



HexBond™ EA9686 STRUCTIL Adhesive Film



Product Data Sheet

Description

HexBond™ EA9686 is a 120°C/250°F cure film adhesive designed for metal, composite and honeycomb bonding applications. Its formulation based on epoxy resin provides a structural resistance over a large temperature range with a good toughness.

Features

- Good peel strength
- Cure from 110°C/230°F to 135°C/275°F (the adhesive can withstand cure up to 177°C/350°F)
- Storage life: 1 year at or below -18°C/0°F + 4 weeks at room temperature ($\leq 23^{\circ}\text{C}/73^{\circ}\text{F}$)
- Low volatile content ($< 1\%$)

Applications

- Metal-to-metal bonding
- Sandwich construction
- Composite-to-composite bonding

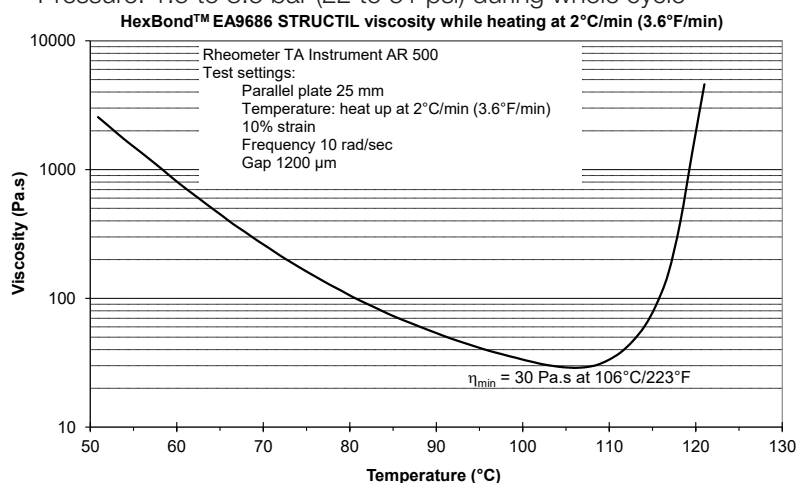
Form

	Areal Weight (psf // g/m ²)	Color	Support	Roll Width (mm)
EA9686.03 NW	0.03 / 146	Pink	Nylon non-woven (17g/m ²)	915
EA9686.06 K	0.06 / 292	Pink	Polyester knit (13 g/m ²)	915
EA9686.09 K	0.09 / 438	Pink	Polyester knit (13 g/m ²)	915

Instructions For Use

Refer to the Safety Data Sheet before handling.

- To avoid any moisture, allow the adhesive to warm at room temperature before opening the waterproof polyethylene bag
- Bonding surfaces should be clean, dry and properly prepared
- Remove protective liners before bonding (release paper and polyethylene film)
- Typical cure cycles: 5h at 110°C/230°F, 2h at 121°C/250°F, 1.5h at 135°C/275°F
Heat up rate: 0.5°C to 5.5°C/min (1°F to 10°F/min)
Pressure: 1.5 to 3.5 bar (22 to 51 psi) during whole cycle





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Bond Strength Performance After Cure

Test	Test Temperature (°C/°F)	EA9686.03 NW	EA9686.06 K	EA9686.09 K
Lap shear strength ⁽¹⁾ (MPa / psi)	23 / 73	35 / 5067	39 / 5656	42 / 6091
	100 / 212	26 / 3770	28 / 4061	30 / 4351
	120 / 248	22 / 3190	23 / 3335	25 / 3626
	100 212 after WA ⁽³⁾		14 / 2030	
Floating roller peel ⁽²⁾ (N/25 mm // lb/in)	23 / 73	200 / 45	208 / 47	205 / 46
	100 / 212	205 / 46	210 / 47	212 / 47

Glass Transition Temperature

Cure Cycle	State	Tg Onset (°C/°F)
5h at 110°C / 230°F	As received	129 / 264
	Wet ⁽³⁾	89 / 192
1.5h at 135°C / 275°F	As received	125 / 257
	Wet ⁽³⁾	89 / 192

(1) According to EN 2243-1, on aluminum 2024T3 clad treated with sulfo-chromic acid etch, cure 2h at 120°C/248°F (2°C/min)

(2) According to IGC 04.26.360B, on aluminum 2024T3 clad treated with sulfo-chromic acid etch, cure 2h at 120°C/248°F (2°C/min)

(3) Wet ageing: 70°C/158°F, 85% relative humidity, saturation

This information is provided for informal purposes only, without legal responsibility and does not constitute a specification. Users are expected to perform adequate verification and testing to ensure that materials meet required specification.

For more information

Hexcel is a leading worldwide supplier of composite materials to aerospace and industrial markets. Our comprehensive range includes:

- HexTow® carbon fibers
- HexMC® molding compounds
- Acousti-Cap® sound attenuating honeycomb
- HexForce® reinforcements
- HexFlow® RTM resins
- Engineered products
- HiMax™ multiaxial reinforcements
- HexTool® tooling materials
- Polyspeed™ laminates
- HexPly® prepregs
- HexWeb® honeycombs
- Engineered core
- HexAM™ additive manufacturing

For US quotes, orders and product information call toll-free 1-800-688-7734. For other worldwide sales office telephone numbers and a full address list, please go to:

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