Product Data
Aerospace Adhesives

PRF
Composite Materials
Approved Distributor

Film Adhesive
EA 9686 STRUCTIL

SAFRAN
Structil

DESCRIPTION
EA 9686 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 (≤ 25°C/77°F)
- Low volatile content (<1%)

AVAILABLE FORMS

	EA 9686.03 NW	EA 9686.06 K	EA 9686.09 K
Weight	0.03 psf / 146 g/m^2	0.06 psf / 292 g/m^2	0.09 psf / 438 g/m^2
Carrier	Nylon non woven (17 g/m^2)	Polyester knit (13 g/m^2)	Polyester knit (13 g/m^2)
Colour	Pink	Pink	Pink

INSTRUCTIONS FOR USE
- Refer to the Material 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 to 5.5°C/min (1 to 10°F/min)
Pressure: 1.5 to 3.5 bar (22 to 51 psi) during whole cycle.

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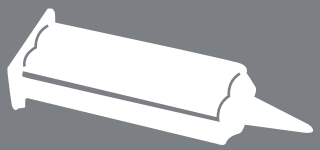

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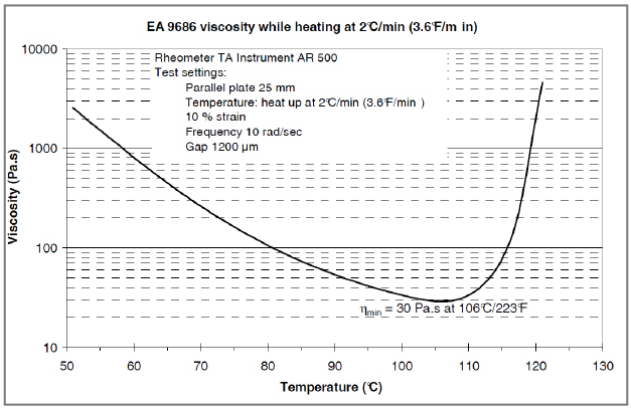

MECHANICAL PROPERTIES

TEST	TEST TEMPERATURE (°C/°F)	EA 9686.03 NW	EA 9686.06 K	EA 9686.09 K
Lap shear strength[1] (MPa/PSI)	25 / 77	35 / 5076	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/25mm / lb/in)	23 / 77	200 / 45	208 / 47	205 / 46
	100 / 212	205 / 46	210 / 47	212 / 47

[1] According to EN 2243-1, on aluminium 2024T3 glad treated with sulfo-chromic acid etch, cure 2h at 120°C (2°C/min)
[2] According to IGC 04.26.360B, on aluminium 2024T3 glad treated with sulfo-chromic acid etch, cure 2h at 120°C (2°C/min)
[3] Wet Ageing: 70°C/158°F, 85% relative humidity, saturation

GLASS TRANSITION TEMPERATURE

CURE CYCLE		Tg ONSET (°C/°F)
5h at 110°C/230°F	Dry	129 / 264
	Wet[3]	89 / 192
1.5h at 135°C/275°F	Dry	125 / 257
	Wet[3]	89 / 192

All values are nominal.

Important notice

All statements, technical information and recommendations offered are only for consideration and evaluation. Whilst they are believed to be accurate they are not guaranteed and are provided without warranty of any kind. No undertaking is given that the goods/products supplied are fit for any particular purpose and the buyer/user should rely upon its own tests to establish suitability of the goods/products for its particular purpose. The buyer/user shall assume all risks and liabilities in connection therewith.

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bsi. UKAS MANAGEMENT SYSTEMS 0003
CERTIFICATE NO. RS 12803

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