

## FASTBLOCK® 100 Series



### READY-TO-USE FIREWALL SEALANT, ADHESIVE, AND REPAIR COMPOUNDS

#### Description

FASTBLOCK® 100 SERIES compounds are ready-to-use, moisture-curable firewall sealants for high vibration areas. These one-part, non-ablative sealants cure to tough, durable elastomers upon exposure to air. The materials adhere well to metals, composites, paints, and most other common substrates without the use of primers or special surface preparation. FASTBLOCK® 100 SERIES sealants have a paste consistency that makes them effective on vertical and overhead surfaces and in the repair of panel holes. The materials can be dispensed from caulking systems or spread by trowel. Upon exposure to fire, the materials form a strong, dense ceramic char with excellent adhesion and fire blocking properties.

#### Benefits

FASTBLOCK® 100 SERIES sealants offer the following advantages:

- ▶ Reduce installation costs by eliminating mixing, primer, cold storage, and special surface preparation
- ▶ Reduce material waste via re-sealable containers
- ▶ Easy to remove and repair
- ▶ Increase occupant safety by meeting the most stringent fire, smoke, and toxicity requirements

**Uses**

FASTBLOCK® 100 SERIES compounds seal firewall construction gaps, holes, slots, tube and wire penetrations, access panels, joints, and other breaches against fire and fumes. These materials can be combined with fiberglass or stainless steel foil to quickly repair larger damaged areas in non-structural firewalls. The materials can also be used as adhesives and insulating coatings.

FASTBLOCK® 100 SERIES compounds are effective at service temperatures from -54°C to +204°C (-65°F to +400°F) and withstand short-term exposure to higher temperatures including a +1100°C/116kW/m<sup>2</sup> (2000°F/10 BTU/ft<sup>2</sup>-s) flame as required by ISO 2685 and FAA AC 20-135.

**Sample Properties – FASTBLOCK® 100\***

**Method**

GRAVITY	1.25	AS 5127/1												
FLOW	0.26cm (0.1 inches)	AS 5127/1												
NONVOLATILES	82%	AS 5127/1												
TACK-FREE TIME	6 hours	AS 5127/1												
HARDNESS	63 Shore A	AS 5127/1												
THERMAL RUPTURE-RESISTANCE	No deformation of 5.1 cm (2 inch) diameter, .32 cm (.125 inch) thick sample covering .64 cm (.25 inch) diameter hole when exposed to 205°C (401°F) and 34 kPa (5 psi) pressure for 15 minutes	AS 5127/1												
LOW TEMP. FLEXIBILITY	No cracks or loss of adhesion after 130 cycles at -55°C (-67°F)	AS 5127/1												
PEEL STRENGTH	<table border="1"> <thead> <tr> <th>Panel</th> <th>Original</th> <th>Heat Aging: 72 hrs. at 401°F (205°C)</th> </tr> </thead> <tbody> <tr> <td>Aluminum</td> <td>23.54 ppi (41.2 N/cm)</td> <td>22.48 ppi (39.34 N/cm)</td> </tr> <tr> <td>CRS</td> <td>25.79 ppi (45.13 N/cm)</td> <td>23.5 ppi (41.0 N/cm)</td> </tr> <tr> <td>Titanium</td> <td>19.12 ppi (33.46 N/cm)</td> <td>18.67 ppi (32.6 N/cm)</td> </tr> </tbody> </table>	Panel	Original	Heat Aging: 72 hrs. at 401°F (205°C)	Aluminum	23.54 ppi (41.2 N/cm)	22.48 ppi (39.34 N/cm)	CRS	25.79 ppi (45.13 N/cm)	23.5 ppi (41.0 N/cm)	Titanium	19.12 ppi (33.46 N/cm)	18.67 ppi (32.6 N/cm)	AS 5127/1
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CORROSION RESISTANCE	No loss of adhesion, softening, blistering, or leaching. No corrosion of steel or aluminum test panels after 20 days immersion in 3% sodium chloride at 60°C (140°F)	AS 5127/1												
FLAME RESISTANCE	Sealant samples covering 1.27 cm (.5 inch) hole in stainless steel panels did not crack, lose adhesion, or allow bum-through or backside ignition when tested for 15 minutes with a 1100°C/116 kW/m <sup>2</sup> (2000°F/10 BTU/ft <sup>2</sup> -s) flame under the following conditions: (1) Vibration, 4g/50 Hz; (2) Fluid immersion, 72 hours in AMS 3021 fluid (MIL-L-7808) at 60°C (140°F); (3) Short cure time, 15 minutes after sealant application	FAA AC 20-135 ISO 2685												
OIL RESISTANCE	No loss of adhesion, softening, or blistering after 72 hours immersion in AMS 3021 fluid (MIL-L-7808) at 60°C (140°F) on an aluminum substrate	AMS 3374C												

STORAGE STABILITY	No change in flow, hardness, or tack-free time after storage for 6 months at 27°C (80°F)				AS 5127/1
SHEAR STRENGTH	<u>Panel</u>	<u>Original</u>	<u>Heat Aging:</u> 72 hrs. at 401°F (205°C)	<u>Condensing Humidity:</u> 168 hrs. at 120°F (49°C)	3374C
	Aluminum	377 psi (2599 kPa)	360 psi (2480 kPa)	350 psi (2431 kPa)	
	CRS	415 psi (2862 kPa)	471 psi (3264 kPa)	310 psi (2135 kPa)	
	Titanium	375 psi (2585 kPa)	355 psi (2447 kPa)	265 psi (1827 kPa)	
APPLICATION TIME	48 g/min. (1.3 fluid ounces/ min.) flow rate from standard sealing compound gun with 440 nozzle, .32 cm (.125 inch) orifice, and 621 kPa (90 psig) pressure after 4 hours elapsed time				AS 5127/1
REPAIRABILITY	Material adheres well to itself, other AMS 3374C sealants, and to polyurethane thermal barrier coatings				AS 5127/1

\* FASTBLOCK® 100 is one of several compounds in the 100 series. Please refer so the material specification TA 18000 Rev. B (SP 111) and test report summary of each compound of interest. Properties shown above are excerpts from Test Report Summary – TR111, September 2006.