

TECHNICAL DATA SHEET

Micro-Ultra 15-3

POLYESTER FILLER SYSTEM

FLAME RETARDANT/ MEETS FAR 25.853 FLAME TESTING

DESCRIPTION

Micro-Ultra 15-3 fast set filler paste is a rigid, light weight (low density) system meeting FAR 25.853a for the stringent requirements of the aerospace and aircraft industries. New technology and space age materials have made possible a weight reduction in applied product of 30-35%. It is an ideal material for repair and surface finishing of interior composites that is qualified to several OEM specifications*. The chemical resistance of Micro-Ultra 15-3 is excellent; the system will withstand the cleaning solutions used in routine maintenance. Micro-Ultra 15-3 offers the user a smooth, creamy system with high physical properties and less added weight. Micro-Ultra 15-3 is non-conductive and has excellent finishing properties. Micro-Ultra 15-3 has excellent bonding and filling qualities with fiberglass, SMC, BMC, RIM, FRP, graphite and Kevlar® composites. It withstands vibrations and impact without loss of bond or surface webbing. Micro-Ultra 15-3 can be applied by splining, squeegee, spatula or any flat type tool. Once set, it can be finished by mechanical or hand sanding or grinding. Decorative coverings are also workable; Micro-Ultra 15-3 does not bleed out. **Typical applications include:** filling porosity and cloth impression in prepreg or wet layup / infused composites, filling porosity and surface blemishes on exterior composites, surface filling on interior composites, renewing and repairing broken or cracked areas, overhaul and refinishing on interior parts, edge fill, and many more areas of final fabrication and finish.

PROPERTIES

- Self-extinguishing
- Very quick setting
- Lightweight (low density)
- Meets or exceeds flame requirements for FAR 25.853a
- Excellent finishing and machinability
- Easy to use
- High gloss finish
- Qualified to several OEM specifications*

*For details please reference OEM qualified product list.

PHYSICAL PROPERTIES

Composition	POLYESTER Micro-Ultra 15-3		BPO HARDENER BPO	MIXED
Mix ratio by weight	100		2	
Mix ratio by volume at 25 °C				
Aspect	Paste		Cream Paste	Paste
Color - (Three BPO cream hardener color choices)	White		Red White Black	Pink White Gray
Vertical sag at 25 °C (inches)				<.05
Specific gravity at 25 °C	lbs./gal (g/cc)	ASTM D792	10.0 (1.20)	10.0 (1.20)
Pot Life at 25 °C (50 g) (minutes)	ASTM D2471			4.0 – 8.0
Finish Schedule (minutes)				12 - 15

MECHANICAL PROPERTIES at 23 °C ⁽¹⁾

Hardness (Shore D)	ASTM D-2240		75 - 77	
Tensile Strength (psi)			1,887	
Elongation at break (%)	ASTM D-638		Not run	
Flexural Strength (psi)	ASTM D-790		2,790	
Flexural Modulus	ASTM D-790		438,000	
Compressive Strength (psi)	ASTM D-695		5,672	
Heat Deflection Temperature °F/(°C)	ASTM D-648		128 (53)	
Water absorption – 24 hr/R.T. soak (%)	ASTM D-570		0.8	
Coefficient of thermal expansion (CTE)	ASTM D-696 10 ⁻⁶ .°F ⁻¹ / (°C)		18 (32)	

(1) Average values obtained on standard specimens / Cured 7 days at 25°C

PROCESSING

PROCESSING CONDITIONS

- Thoroughly blend 100 parts resin with 2 parts hardener by weight for 1 to 1 ½ minutes in clean dry container or on a clean dry surface.
- Carefully scrape the surfaces while blending to ensure complete mixing and uniformity.

SURFACE PREPARATION and APPLICATION

- The area to be filled or repaired should be thoroughly cleaned, roughened, cleaned again and dried to allow for the best possible adhesion.
- The mixed Micro-Ultra 15-3 should be buttered into the area, avoiding trapping air during applic
- After curing to a tack-free state, the material can be sanded and finished as needed.

MIXING INSTRUCTIONS

Stir contents of can thoroughly using a spatula or putty knife. Place the required amount of filler and cream hardener on a disposable clean surface. Mix 100 parts paste to 2 parts BPO cream hardener by weight; i.e. approximatly size of golf ball (paste) to a two inch strip of BPO catalyst. Set up time of mix at room temperature will be 5-10 minutes. After 15-20 minutes the filler may be filed or sanded to final finish.

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products :

- Ensure good ventilation.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheets.

STORAGE CONDITIONS

- Product shelf life of polyester resin is 6 months when stored in original unopened containers between 65 – 77°F (15 – 25°C). Any opened can must be tightly closed. Product shelf life of BPO hardener is 18 months when stored in original unopened containers between 65 – 77°F (15 – 25°C). Any opened can must be tightly closed.
- Polyester resin contains filler which has the potential to separate in time, please re-homogenize prior to use.

PACKAGING

Packaging information on request, please contact your local sales representative or find your local contact on www.sikaadvancedresins.us

LEGAL NOTICE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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