

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		White	Red	Pink
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)	9.98 (1.20)
Pot Life at 25 °C (50 g)	(minutes)	ASTM D2471		4.0 – 8.0
Finish Schedule	(minutes)			12 - 15
Resin Shelf Life (in original unopened containers)			6 months from Date of Customer Receipt	
Cream Hardener Shelf Life			18 months from Date of Manufacture	
Storage Requirement				40 – 80°F (4 – 27°C)

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. approximately 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 (from date of customer receipt) when stored in original unopened containers between 40 – 80°F (4 – 27°C). Any opened container must be tightly closed.
- Product shelf life of BPO hardener is 18 months when stored in original unopened containers between 40 – 80°F (4 – 27°C). Any opened container 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

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