

Ultralane® 753FR - A/B

SHORE 95A POLYURETHANE POTTING & BONDING SYSTEM

Ultralane® 753FR- A/B is an easy to use, low viscosity potting, sealing, & bonding system that provides flame retardance and self-extinguishing properties that complies with UL 94V0. It contains no MOCA or TDI and develops high tensile strength and tear strengths without the need for a heat cure. However, where heat curing is possible, increase mechanical strengths can be achieved by using a heat cure. The cured polymer provides tough, impact & vibration resistant bonds that exhibit excellent environmental resistance and good chemical resistance. It also provides excellent electrical insulation properties when used in potting & encapsulation applications.

The Ultralane 753 system has a natural tan color and is also available in black. The natural color can be pigmented or dyed prior to curing and to produce a wide range of colors and visual effects. Custom colored versions of this system are also available by request, as are versions containing UV stabilizers or anti-oxidants to give protection against extended exposure to UV light or high temperatures in the end use application. Other custom variations are possible, please contact us to discuss the development of a custom variant that would be suitable for your application.

SUGGESTED APPLICATIONS:

- Impact & Vibration resistant bonds to metal, rubber, glass, and many plastics
- Electric Potting & Encapsulation

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>Ultralane 753A (resin)</u>		
Visual Appearance	Dark Amber liquid	
Density, Part A	1.24 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	100-200 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
<u>Ultralane 753B (hardener)</u>		
Visual Appearance	Milky-white or Black Liquid	
Density,	1.40 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	3,100 – 4,500 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
Mixed Viscosity @ 25°C	1,800 cps	ASTM D-2393
Mix Ratio by weight and volume:	23A : 100B by weight or 1A:4B by volume	
Pot life, 4oz / 150 gram mass	20 - 30 minutes	
Demolding time:	4-8 hours @ room temperature or allow to gel then cure for 2 hours at 150°F or 1 hour @ 80°C. Allow to cool prior to demolding.	
Cure Schedules:	24 hours @ 25°C (Full properties may take up to 7 days at room temperature) or gel at 25°C for at least 2 hrs. then heat cure 8 hrs. @ 80°C.	

CURED PROPERTIES	ROOM TEMP. CURE	HEAT CURE	TEST METHOD
Density	69 lb./ft ³ (1.3 g/cm ³)	69 lb./ft ³ (1.3 g/cm ³)	ASTM D-792
Hardness, Shore A			
at 25°C (77°F)	95	95	ASTM D-2240
at 65°C (150°F)	85	87	
at 80°C (175°F)	85	87	
at 93°C (200°F)	85	87	
at 121°C (250°F)	80	81	
at 138°C (280°F)	65	68	
at 150°C (300°F)	45	49	
After cycling to 150°C, cooled then re-tested @ 25°C	95	96	
Ultimate Tensile Strength	2,800 psi	3,600 psi	ASTM D-638
Tensile Elongation	210%	320%	ASTM D-638
Tear Strength	470 ppi	580 ppi	ASTM D-624
Coefficient of Thermal Expansion			ASTM E-381
(-30°C to +30°C)	129 ppm/°C	-	
(0°C to 80°C)	141 ppm/°C	-	
Water Absorption by weight			ASTM D-570
24 hrs at 25°C	0.84%	-	
7 days at 25°C	1.68%	-	
2 hours in boiling water	1.81%	-	
Thermal conductivity	0.4 W/mK	0.4 W/mK	ASTM D-2214
Flame Retardance	Self-extinguishing - Complies with UL 94V0		
Volume Resistivity	> 1 x 10 ¹⁴ ohm-cm		ASTM D-257
Dielectric Constant	4.3		ASMT D-150

PROCESSING AND APPLICATION INSTRUCTIONS:

The Ultralane 753FR-B component may settle during storage or transportation. Shaking or stirring the container of 753FR-B prior to use will ensure that the material is uniform.

To use, weigh Part A and Part B into a clean mixing container. Mixing containers should preferably be made of polypropylene, polyethylene, glass, or non-corroding metal. (Stainless steel, aluminum, etc.). Always use weighing equipment having accuracy that is ±1% or less of the smallest quantity that you will be weighing. Blend Parts A & B thoroughly using a spatula or stirring stick for at least 1-2 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture.

PACKAGING AVAILABLE:

This product is available in quarts, gallons, 5-gallon pails & drums.

It can also be supplied in dual syringe cartridges of approximately 50ml or 200ml or 400ml. The dual syringe cartridges eliminate the need for hand mixing and allow for almost air free processing.

Please call use with any special packaging requests or for information on custom kitting.

STORAGE GUIDELINES:

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Protect from extended exposure to temperatures below 15°C (59°F). Crystallization may occur if the material is exposed to cold for extend periods. If this occurs, heat the entire container for 4 hours at 70°C to re-liquefy the material. Allow to cool to ambient temperature prior to using. Also protect the EpoPro 104A&B from exposure to moisture or high humidity. Tightly re-seal containers after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

HANDLING PRECAUTIONS & PERSONAL HYGENIE

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

Ultralane 753FR-A

WARNING! Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Can be Harmful if inhaled. May cause eye & skin irritation. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

Ultralane 753FR-B

CAUTION! In accord with good industrial practice, handle with due care. Could cause eye, skin, and respiratory irritation. Prolonged or repeated skin contact or inhalation of vapors may cause allergic skin or respiratory reactions. Harmful if inhaled or swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation.

FIRST AID

In case of contact:

Skin – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

Eyes – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

Inhalation - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Ingestion - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

DISCLAIMER:

IMPORTANT: The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

Specialty Polymers & Services, Inc. (SP&S)

27822 Fremont Court

Valencia, CA 91355

www.spolymers.com

Tel: 661-294-1790

Fax : 661-294-0640

info@spolymers.com