

LAST-A-FOAM® FR-3800 FST

Performance Core Series



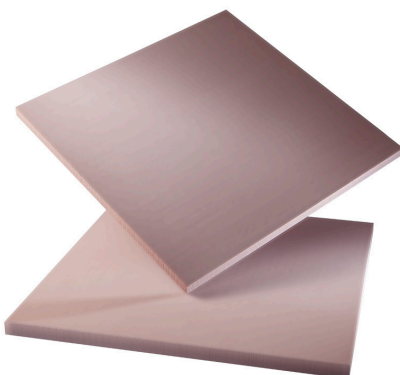
PRODUCT OVERVIEW

FR-3800 FST is a halogen-free polyurethane-based foam that is compliant with fire, smoke and toxicity (FST) requirements, Ohio State University (OSU) 65/65 heat release standards for aerospace interior applications and REACH regulation. It is available in a wide range of densities, from 3 to 40 pounds per cubic foot, and sheet thickness of up to 24 inches. Custom sizes and thickness are also available.

The FR-3800 FST can be thermoformed, easily machined and bonded. This series offers the ability to operate at a higher temperature than other foams, which provides a larger processing window to manufacture composite parts.

This FST performance core series exhibits high strength-to-weight ratio due to its cellular and cross-linked structure. It meets the mechanical property requirements for core and structural FST applications without the high cost associated with alternative materials such as thermoplastic foams and honeycomb.

With the FR-3800 FST, design and performance goals are achieved while meeting fire safety requirements.



General Plastics also provides FAA-certified in-house testing

FEATURES AND BENEFITS:

- Passes fire, smoke and toxicity (FST) requirements
- Meets OSU 65/65 heat release standards
- Sheet thickness up to 24 inches
- Thermoformable into simple curves
- Shapes easily with common machining methods
- Bonds well with composite skins
- Withstands process temperatures up to 310° Fahrenheit
- Resistant to water absorption
- Resistant to most chemicals and solvents
- Will not support fungal growth
- No edge-closing or filling needed

APPLICATIONS:

- First-class seating pods
- Sandwich core for aircraft interior components

Ceiling panels

Wall panels

Floor ramps

Door panels

Hard points in composite panels

Passenger cabin class dividers

- Lightweight flyaway parts
- Edge closeouts
- Support/shim pieces

Available Densities:

lbs./ft ³	3	4	8	18	30	40
kg./m ³	48	64	128	288	480	640

PHYSICAL AND THERMAL PROPERTY DATA

PROPERTY	FR-3803 FST	FR-3804 FST	FR-3808 FST	FR-3818 FST	FR-3830 FST	FR-3840 FST	TEST METHOD
Density	3	4	8	18	30	40	ASTM-D-1622
Compressive Strength (psi)	43	76	219	739	1691	3626	ASTM-D-1621
Tensile Strength (psi)	37	72	178	501	1081	1891	ASTM-D-1623 Type A Specimens
Glass Transition, Tg (F°)	300	300	300	300	300	300	ASTM-E-1824
Heat Release Peak (kW/m ²)	PASS	PASS	PASS	PASS	PASS	PASS	FAR Part 25, Appendix F, Part IV
Heat Release Total	PASS	PASS	PASS	PASS	PASS	PASS	FAR Part 25, Appendix F, Part IV
Smoke Density	PASS	PASS	PASS	PASS	PASS	PASS	FAR Part 25, Appendix F, Part V
Toxicity	PASS	PASS	PASS	PASS	PASS	PASS	FAR Part 25, Appendix F, Part V
Fire Safety	*S/E	*S/E	*S/E	*S/E	*S/E	*S/E	15s extinguish time, <6 in burn length *via test method shown below

*Self-extinguishing via test method shown below

*FAR 25.853 (A) App. F (a)(1)(i) & (ii) tested vertically on 1/2" thickness specimen using 60 - and 12- second ignition with a Bunsen burner.

This data is subject to revision and changes due to development of and changes to the material. The data is derived from tests and historical usage. The data is averaged data and should be treated as such. Calculations should be verified by actual tests. The data is furnished without liability for the company and does not constitute a warranty or representation in respect to the material or its use. The company reserves the right to release new data sheets in replacement.

General Plastics is certified to ISO 9001:2008/AS9100C and meets such demanding quality systems as NQA-1, Mil-I-45208A, and Boeing Company D6-82479.



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