GENERALPLASTICS MANUFACTURING COMPANY

WHERE GREAT IDEAS TAKE SHAPE.

LAST-A-FOAM® FR-4500 TOOLING BOARD SERIES

LAST-A-FOAM® FR-4500 high density tooling foam is grain-free and easy-to-machine, ideal for design models, master models, masters for composite and layup tools, and for mold and foundry patterns. These are manufactured using our unique chemical formula to be exceptionally stable, uniform and consistent in all physical properties.

The material also serves as an excellent wood alternative for outdoor signage and display manufacturing due to its excellent edge definition and the ability to create precise and intricate designs. It supports fine surface finishes and bonds well with a variety of adhesive systems.

Available in densities from 10 to 50 pounds per cubic foot.

All General Plastics' products are manufactured in the United States and are free of CFCs and VOCs.

FEATURES & BENEFITS

- Special formulation creates shavings when material is machined, causing less dust
- Consistent and uniform
- Dimensionally stable
- No warp or bow in sheets
- Large sheets up to 48" x 96", thickness up to 22"
- Custom sizes available

POTENTIAL APPLICATIONS

- Design prototypes
- Appearance or "sight" models
- Styling models
- Architectural models
- Master models
- Temporary models
- Trim, jigs, and fixtures
- Thermoforming tools
- Prototype foundry patterns
- Mold patterns
- Topographical maps
- Dimensional check-fixtures
- Molds for low-temperature casting (<200 ºF)
- Prototype/low-volume
- Vacuum-forming tools

CERTIFICATIONS & QUALITY SYSTEMS

ISO 9001:2015/AS9100D
Mil-I-45208A
Boeing Company D6-82473
ITAR-Compliant

PHYSICAL PROPERTY DATA

PROPERTY	UNIT	FR-4510	FR-4512	FR-4515	FR-4520	FR-4530	FR-4540	FR-4550	TEST METHOD
Density	lbs/ft^3	10	12	15	20	30	40	50	ASTM D-1622
	kg/m^3	160	192	240	320	481	641	801	
Compressive Strength (75°F)	psi	300	360	600	1,250	2,100	3,600	4,500	ASTM D-1621
	kPa	2,050	2,500	4,150	8,600	14,500	24,800	31,000	
Tensile Strength	psi	260	290	425	880	1,500	2,500	3,100	ASTM D-1623 Type A Specimens
	kPa	1,800	2,000	2,950	6,050	10,300	17,200	21,400	
Flexural Strength	psi	380	410	670	1,350	2,100	3,900	4,800	ASTM D-790 Method 1-A
	kPa	2,600	2,800	4,600	9,300	14,500	26,900	33,100	
Coefficient of Thermal Expansion (CTE)	in/in-°F	29 X 10^{-6}							From -50 to +200°F, GP Method
	m/m-K	52 X 10^{-6}							
Max Use Temperature	°F	200							
	°C	93							

Values shown are parallel to the direction of rise and representative values.

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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. These values do not constitute a sales specification. 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.

For additional physical property data, please contact our technical sales group at 253.473.5000 or sales@generalplastics.com

STANDARD SHEET SIZES

PRODUCT	HEIGHT in (cm)	WIDTH in (cm)	LENGTH in (cm)
FR-4512	21 (53)	20 (51)	80 (204)
FR-4512	21 (53)	30 (77)	80 (204)
FR-4512	24 (61)	48 (122)	96 (244)
FR-4515	24 (61)	48 (122)	96 (244)
FR-4515	14 (36)	60 (153)	120 (305)
FR-4515	23 (59)	20 (51)	80 (204)
FR-4515	23 (59)	30 (77)	80 (204)
FR-4515	24 (61)	60 (153)	96 (244)
FR-4515	24 (61)	48 (122)	120 (305)
FR-4520	16 (41)	32 (82)	80 (204)
FR-4520	18 (46)	48 (122)	96 (244)
FR-4520	20 (51)	20 (51)	80 (204)
FR-4520	20 (51)	30 (77)	80 (204)
FR-4520	20 (51)	48 (122)	80 (204)
FR-4530	18 (46)	48 (122)	80 (204)
FR-4530	16 (41)	20 (51)	80 (204)
FR-4530	16 (41)	30 (77)	80 (204)
FR-4540	14 (36)	24 (61)	60 (153)
FR-4550	10 (26)	20 (51)	80 (204)
FR-4550	12 (31)	15 (39)	50 (127)