

GE

Plastics

Specialty Film & Sheet

Ultem* 1668L Sheet

Product Datasheet

Description

Ultem* 1668L sheet was engineered to meet the stringent demands of the aircraft seating market. Ultem 1668L sheet was designed as a no paint solution for high compliance seating applications. The proprietary formulation provides lower surface gloss after forming than Ultem 1668A. Based on GE's proprietary Ultem resin, Ultem 1668L sheet exhibits excellent flame and smoke characteristics. Ultem 1668L sheet meets all current FAA and airframe standards for interior parts including OSU 65/65 heat release and toxicity. Ultem 1668L does not contain PVC, Penta-BDE, or Octa-BDE.

Typical Property Values ♦

Property	ASTM Test Method	Units (USCS)	Value
Mechanical			
Tensile strength			
@ yield	ASTM D638	psi	13,300
@ ultimate	ASTM D638	psi	11,600
Tensile modulus	ASTM D638	psi	471,000
Tensile elongation @ yield	ASTM D638	%	7.4
Tensile elongation @ ultimate	ASTM D638	%	79
Flexural strength (gauge dependent) ##	ASTM D790-03	psi	18,900
Flexural modulus (gauge dependent) ##	ASTM D790-03	psi	486,000
Dynatup impact strength, (1/2 in			
Diameter dart (gauge dependent)	ASTM D3763	ft-lb	35
Izod impact strength (gauge dependent) ##			
notched (Method A)	ASTM D256A	ft-lb	1.6
unnotched	ASTM D48812	ft-lb	56
Gardner Impact strength, Round Tup			
(Gauge Dependent) ##	ASTM D 3029	ft-lb
Hardness	ASTM D 785		
	(Rockwell R)		120
Hardness	ASTM D 785		
	(Rockwell M)		90
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	2.75x10 ⁻⁵
Heat Deflection Temperature###	ASTM D648		
	@ 264 psi	°F	340 °F
	@66 psi	°F	378 °F

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Property	ASTM Test Method	Units (USCS)	Value
Physical			
Specific Gravity (Color Dependent)	ASTM D792A		1.33
Water Absorption, Equilibrium, 24 hrs	ASTM D570	%	0.23
Gloss (Gardner 60 degree, prior to forming)	ASTM D 523		5-15
Flammability			
Oxygen Index (LOI)	ASTM D2863		56
OSU Heat Release @3.5 W/cm²	FAR 25.853, appendix F, Part IV		
@ 2 min Total ###		Kw-min/m²	Pass (10)
@Peak ###		Kw/m²	Pass (37)
Flammability, 60 second vertical burn	FAR 25.853,appendix F, Part I		Pass
NBS Smoke, Flaming Mode	FAR 25.853, appendix F, Part V		Pass
Toxicity	BSS 7239		Pass
	ABD 0031		Pass

reported values based on 0.118" thickness