ULTEM™ RESIN AR9110

REGION AMERICAS

DESCRIPTION

10% Glass fiber filled, enhanced flow Polyetherimide (Tg 217C). Meets FAR 25.853 and OSU 65/65 with low toxicity, smoke, and flame evolution. ECO Conforming.

INDUSTRY	SUB INDUSTRY
Industrial	Defense, Additive Manufacturing, Additive Materials
Mass Transportation	Aircraft Interiors, Rail

TYPICAL PROPERTY VALUES

Revision 20181121

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	106	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	102	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8	%	ASTM D 638
Tensile Modulus, 5 mm/min	4480	MPa	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	188	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	4820	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	58	J/m	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	395	J/m	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	207	°C	ASTM D 648
PHYSICAL			
Specific Gravity	1.4	-	ASTM D 792
Melt Flow Rate, 337°C/6.6 kgf	12.5	g/10 min	ASTM D 1238
FLAME CHARACTERISTICS			
FAA Flammability, FAR 25.853 A/B	NATURAL	-	FAR 25.853
OSU total heat release (2 minute test)	6	kW-min/m²	FAR 25.853
OSU peak heat release rate (5 minute test)	36	kW/m²	FAR 25.853
NBS Smoke Density, Flaming, Dmax	5	-	ASTM E 662
NBS Smoke Density, Flaming, Ds 1.5 min	0	-	ASTM E 662
NBS Smoke Density, Flaming, Ds 4 min	5	-	ASTM E 662
INJECTION MOLDING			
Drying Temperature	150	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	365 – 390	°C	
Nozzle Temperature	360 – 380	°C	
Front - Zone 3 Temperature	365 – 390	°C	

© 2018 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Middle - Zone 2 Temperature	355 – 375	°C	
Rear - Zone 1 Temperature	345 – 365	°C	
Mold Temperature	135 – 165	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2018 Copyright by SABIC. All rights reserved