ULTEM™ RESIN AUT195

REGION AMERICAS

DESCRIPTION

High flow Polyetherimide blend for automotive lighting applications where highly metallized, reflective surfaces are required. Haze onset temperature of 195C (SABIC test method).

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Lighting, Automotive Exteriors

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	96	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	70	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	145	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	3170	MPa	ASTM D 790
Tensile Modulus, 1 mm/min	3000	MPa	ISO 527
Flexural Modulus, 2 mm/min	3100	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	2082	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	2136	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	190	°C	ASTM D 648
Thermal Conductivity	0.23	W/m·°C	ISO 8302
CTE, 23°C to 150°C, flow	6.E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	6.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	205	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	195	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	180	°C	ISO 75/Ae
Metallized Haze Onset	195	°C	SABIC method
PHYSICAL			
Specific Gravity	1.26	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Mold Shrinkage on Tensile Bar, xflow	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 337°C/6.6 kgf	24	g/10 min	ASTM D 1238
Density	1.27	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.9	%	ISO 62

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
Melt Volume Rate, MVR at 340°C/5.0 kg	16	cm³/10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	130 – 140	°C	
Drying Time	3 – 4	hrs	
Melt Temperature	340 – 380	°C	
Nozzle Temperature	340 – 360	°C	
Front - Zone 3 Temperature	340 – 360	°C	
Middle - Zone 2 Temperature	330 – 350	°C	
Rear - Zone 1 Temperature	320 – 340	°C	
Hopper Temperature	80 – 100	°C	
Mold Temperature	125 – 140	°C	

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