

ULTEM™ RESIN AUT195M

REGION EUROPE

DESCRIPTION

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

(SABIC test method). Contains low level of mold release.

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	97	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	85	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	70	%	ASTM D638
Tensile Modulus, 5 mm/min	3300	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	145	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3170	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	95	MPa	ISO 527
Tensile Stress, break, 50 mm/min	75	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6.5	%	ISO 527
Tensile Strain, break, 50 mm/min	20	%	ISO 527
Tensile Modulus, 1 mm/min	3000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	125	MPa	ISO 178
Flexural Modulus, 2 mm/min	3100	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	2083	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Izod Impact, notched, -30°C	55	J/m	ASTM D256
Izod Impact, Reverse Notched, 3.2 mm	2670	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	50	J	ASTM D3763
Izod Impact, notched 80°10'4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, notched 80°10'4 -30°C	5	kJ/m ²	ISO 180/1A
Charpy -30°C, V-notch Edgew 80°10'3 sp=62mm	4	kJ/m ²	ISO 179/1eA
Charpy 23°C, V-notch Edgew 80°10'4 sp=62mm	4	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	209	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	187	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	191	°C	ASTM D648
Thermal Conductivity	0.23	W/m·°C	ISO 8302
CTE, 23°C to 150°C, flow	5.E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	5.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate A/50	210	°C	ISO 306
Vicat Softening Temp, Rate B/50	200	°C	ISO 306
Vicat Softening Temp, Rate B/120	205	°C	ISO 306

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	195	°C	ISO 75/Be
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	180	°C	ISO 75/Af
Metallized Haze Onset	195	°C	SABIC method
PHYSICAL			
Specific Gravity	1.26	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 337°C/6.6 kgf	24	g/10 min	ASTM D1238
Density	1.26	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.9	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
Melt Volume Rate, MVR at 340°C/5.0 kg	16	cm ³ /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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