ULTEM™ Resin CRS5011

REGION EUROPE

DESCRIPTION

Transparent, Enhanced flow Polyetherimide copolymer (Tg 225C) with enhanced chemical resistance to strong acids, bases, aromatics, and ketones. ECO conforming, UL94 V0 listing.

INDUSTRY	SUB INDUSTRY
Automotive	Heavy Truck, Automotive Under the Hood, Aerospace, Motorcycle, Recreational/Specialty Vehicles
Building and Construction	Building Component
Consumer	Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Energy Management, Drone Solutions, Mobile Phone - Computer - Tablets, Circuit Boards/Additives, Printer Copier, Speaker - Earphone
Industrial	Electrical, Material Handling
Mass Transportation	Rail
Packaging	Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 50 mm/min	100	MPa	ISO 527
Tensile Stress, break, 50 mm/min	85	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	8	%	ISO 527
Tensile Strain, break, 50 mm/min	50	%	ISO 527
Tensile Modulus, 1 mm/min	2900	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	110	MPa	ISO 178
Flexural Modulus, 2 mm/min	2900	MPa	ISO 178
IMPACT			
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
THERMAL			
CTE, 23°C to 150°C, flow	5.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	5.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	220	°C	ISO 306
Vicat Softening Temp, Rate B/50	215	°C	ISO 306
Vicat Softening Temp, Rate B/120	215	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	210	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	200	°C	ISO 75/Ae
Relative Temp Index, Elec [(1)]	160	°C	UL 746B
Relative Temp Index, Mech w/impact [(1)]	155	°C	UL 746B
Relative Temp Index, Mech w/o impact [(1)]	160	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.5 – 0.7	%	SABIC method

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.28	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	1.2	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 360°C/5.0 kg	20	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	2.5E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 3.2 mm	18.1	kV/mm	IEC 60243-1
Dissipation Factor, 50/60 Hz	0.0021	-	IEC 60250
Comparative Tracking Index (2)	150	V	IEC 60112
Comparative Tracking Index, M (2)	100	V	IEC 60112
Relative Permittivity, 50/60 Hz	3.2	-	IEC 60250
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 1	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-221115	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
Glow Wire Flammability Index 960°C, passes at (2)	3.2	mm	IEC 60695-2-12
Oxygen Index (LOI)	49	%	ISO 4589
INJECTION MOLDING			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Nozzle Temperature	360 – 400	°C	
Front - Zone 3 Temperature	370 – 410	°C	
Middle - Zone 2 Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	340 – 380	°C	
Hopper Temperature	80 – 100	°C	
Mold Temperature	140 – 180	°C	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(2) Value shown here is based on internal measurement.

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.

© 2026 Copyright by SABIC. All rights reserved