

# ULTEM™ RESIN 9075

REGION EUROPE

## DESCRIPTION

High flow Polyetherimide blend. Meets FAR 25.853 and OSU 65/65 with low toxicity, smoke, and flame evolution. ECO Conforming.

ISCC+ certified renewable bio-based solutions are available for this grade via differentiated color nomenclature.

INDUSTRY	SUB INDUSTRY
Automotive	Aerospace
Mass Transportation	Rail

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Taber Abrasion, CS-17, 1 kg	15	mg/1000cy	SABIC method
Tensile Stress, yield, 50 mm/min	90	MPa	ISO 527
Tensile Stress, break, 50 mm/min	75	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	25	%	ISO 527
Tensile Modulus, 1 mm/min	3200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	130	MPa	ISO 178
Flexural Stress, break, 2 mm/min	120	MPa	ISO 178
Flexural Modulus, 2 mm/min	3200	MPa	ISO 178
Ball Indentation Hardness, H358/30	127	MPa	ISO 2039-1
<b>IMPACT</b>			
Izod Impact, notched 80*10*4 +23°C	7	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
Thermal Conductivity	0.26	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
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
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	200	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	200	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	185	°C	ISO 75/Ae
<b>PHYSICAL</b>			
Mold Shrinkage on Tensile Bar, flow	0.6 – 0.8	%	SABIC method
Density	1.32	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/saturated)	1.25	%	ISO 62-1

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.7	%	ISO 62
Melt Volume Rate, MVR at 340°C/5.0 kg	15	cm <sup>3</sup> /10 min	ISO 1133
<b>FLAME CHARACTERISTICS</b>			
UL Compliant, 94V-0 Flame Class Rating	1.6	mm	UL 94 by SABIC-IP
OSU total heat release (2 minute test)	10	kW-min/m <sup>2</sup>	FAR 25.853
OSU peak heat release rate (5 minute test)	16	kW/m <sup>2</sup>	FAR 25.853
Glow Wire Flammability Index 960°C, passes at	3.2	mm	IEC 60695-2-12
<b>INJECTION MOLDING</b>			
Drying Temperature	135 – 145	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	350 – 370	°C	
Nozzle Temperature	350 – 370	°C	
Front - Zone 3 Temperature	350 – 370	°C	
Middle - Zone 2 Temperature	345 – 365	°C	
Rear - Zone 1 Temperature	340 – 360	°C	
Hopper Temperature	80 – 120	°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	
<b>PROFILE EXTRUSION</b>			
Drying Temperature	130 – 140	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 330	°C	
Barrel - Zone 1 Temperature	280 – 300	°C	
Barrel - Zone 2 Temperature	295 – 320	°C	
Barrel - Zone 3 Temperature	305 – 330	°C	
Barrel - Zone 4 Temperature	310 – 335	°C	
Hopper Temperature	80 – 100	°C	
Adapter Temperature	285 – 335	°C	
Die Temperature	275 – 330	°C	
Calibrator Temperature	140 – 170	°C	
Calibrator 2 Temperature	90 – 130	°C	

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.



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