XENOY™ RESIN X5100

REGION EUROPE

DESCRIPTION

XENOY X5100 is a semi-crystalline, impact modified PC-PBT blend with excellent flow. (PC+PBT-I).

TYPICAL PROPERTY VALUES

Revision 20231003

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 50 mm/min	54	MPa	ISO 527
Tensile Stress, break, 50 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Tensile Strain, break, 50 mm/min	100	%	ISO 527
Tensile Modulus, 1 mm/min	2150	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2050	MPa	ISO 178
IMPACT			
Izod Impact, notched 80*10*4 +23°C	45	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	40	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	35	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	20	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	18	kJ/m²	ISO 180/1A
Charpy 0°C, V-notch Edgew 80*10*3 sp=62mm	40	kJ/m²	ISO 179/1eA
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	50	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	15	kJ/m²	ISO 179/1eA
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	n.b.	kJ/m²	ISO 179/1eU
THERMAL			
Thermal Conductivity	0.2	W/m·°C	ISO 8302
CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	8.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	135	°C	ISO 306
Vicat Softening Temp, Rate B/50	117	°C	ISO 306
Vicat Softening Temp, Rate B/120	120	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	105	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	84	°C	ISO 75/Ae
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.7 – 1	%	SABIC method
Density	1.22	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	0.5	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 250°C/2.16 kg	13	cm³/10 min	ISO 1133
Melt Viscosity, 260°C, 1500 sec-1	215	Pa-s	ISO 11443
INJECTION MOLDING			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	90 – 100	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 270	°C	
Nozzle Temperature	250 – 265	°C	
Front - Zone 3 Temperature	250 – 270	°C	
Middle - Zone 2 Temperature	240 – 265	°C	
Rear - Zone 1 Temperature	230 – 250	°C	
Hopper Temperature	40 – 60	°C	
Mold Temperature	60 – 80	°C	

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