

SCHULATEC® PP EC 1009 HI BLACK

Polypropylene Copolymer

A. Schulman Europe

Message:

PP electrical conductive, high impact

General Information			
Processing Method	Injection molding		
Resin ID (ISO 1043)	PP-HI (GF+NT)		
Physical	Nominal Value	Unit	Test Method
Density	1.11	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR)			ISO 1133
230°C/10.0 kg	35.0	cm ³ /10min	ISO 1133
230°C/2.16 kg	0.300	cm ³ /10min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 132/10)	105	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	70.0	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.8	%	ISO 527-2/1A/5
Flexural Modulus ¹	4500	MPa	ISO 178
Flexural Stress (5.0% Strain)	100	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	7.0	kJ/m ²	ISO 179/1eA
23°C	10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	50	kJ/m ²	ISO 179/1eU
23°C	50	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	150	°C	ISO 75-2/Bf
1.8 MPa, not annealed	130	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	160	°C	ISO 306/A50
--	115	°C	ISO 306/B50
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3	ohms	IEC 60093
Additional Information			

1.)

Not for use in food contact applications2.)

Not for use in medical or pharmaceutical applicationsCharacteristic propertiesPP is highly inflammable, it burns with a bright flame and a blue core. Afterextinguishing it has a pungent paraffin like smell (similar to tar).hardness and good cold impact resistance.

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0 - 3.0	hr
Suggested Max Regrind	30	%
Rear Temperature	230	°C
Middle Temperature	245	°C
Front Temperature	260	°C
Nozzle Temperature	260	°C
Processing (Melt) Temp	230 - 280	°C
Mold Temperature	40.0 - 70.0	°C
Injection Pressure	80.0 - 160	MPa
Injection Rate	Moderate	
Holding Pressure	25.0 - 85.0	MPa
Back Pressure	5.00 - 20.0	MPa
Cushion	2.00 - 5.00	mm
Screw Speed	600	mm/sec

Injection instructions

PredryingIn general no predrying, only when moisture on granulate surface predrying at 80°C for 2-3 hours is recommended.ReprocessingUp to 100% regind may be used in which case use of additional stabilisation(e.g. POLYCYCLE®) is recommended as a safety precaution. Usual recyclecontent 10 - 30%.Shut downPP can normally be left in the cylinder. It is quiet insensitive to temperature.FinishingThe material must be pre-treated for printing and gluing by flaming or coronadischarge. Otherwise there are some special printing colours or glues.RemarksIn contact with copper the melt will be degraded. For permanent processing ofglass fibre reinforced grades wear resistant screws and cylinders arerecommended.

NOTE

1. 2.0 mm/min

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