RTP 205A MS

Polyamide 6

RTP Company

Message:

Warning: The status of this material is 'Commercial: Limited Issue'
The data for this material has not been recently verified.
Please contact RTP Company for current information prior to specifying this grade.
RTP 205A MS is a nylon 6 containing glass fiber reinforcement and a molybdenum disulfide lubricant. It offers improved wear resistance and low coefficients of friction.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	Molybdenum disulfide lubricant		
Features	Good wear resistance Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.43	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955
Water Absorption (23°C, 24 hr)	1.0	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	120		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	9650	MPa	ASTM D638
Tensile Strength	159	MPa	ASTM D638
Tensile Elongation (Break)	2.5	%	ASTM D638
Flexural Modulus	8960	MPa	ASTM D790
Flexural Strength	234	MPa	ASTM D790
Compressive Strength	124	MPa	ASTM D695
Coefficient of Friction (With Metal-Dynamic)	0.30		ASTM D1894
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	85	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	800	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648

0.45 MPa, not annealed	216	°C	ASTM D648
1.8 MPa, not annealed	204	°C	ASTM D648
CLTE - Flow	3.8E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.52	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, RTP Tested)	HB		UL 94

Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 0.006 in/inWear Factor, K, ASTM D-3702: 80E-10in³/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.30The wear factor and dynamic coefficient of friction were both tested on a Falex Model No.6 Wear Testing Machine at 50 FPM, 2000 PV, against C1018 steel of hardness 15-25 Rockwell C, 14-17 micro smoothness.

Injection	Nominal Value	Unit
Drying Temperature	79.4	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.20	%
Suggested Max Regrind	20	%
Rear Temperature	232 - 288	°C
Middle Temperature	232 - 288	°C
Front Temperature	232 - 288	°C
Mold Temperature	65.6 - 93.3	°C
Injection Pressure	68.9 - 103	MPa

Recommended distributors for this material

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