RTP 203 MG 20 TFE 15

Polyamide 66

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.

-Preliminary Product Data per RTP Co.-

Additive PTE lubricant (15%) Features Lubrication RoHS Compliance Contact manufacturer Appearance Black Natural color Forms Particle Processing Method Injection molding Physical Nominal Value Unit Test Method Specific Gravity 1.60 % ASTM D955 Water Absorption (23°C, 24 hr) 0.50 % ASTM D955 Water Absorption (23°C, 24 hr) 1.20 Unit Test Method Rockwell Hardness (R-Scale) 120 When ASTM D985 Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Strength 138 MPa ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Tensile Strength 124 MPa ASTM D638 Tensile Strength 124 MPa ASTM D695 Compressive Strength 125 MPa ASTM D695 Compressive Strength 126 MPa ASTM D695 Compressive Strength 127 MPa ASTM D695 Compressive Strength 128 MPa ASTM D695 Compressive Strength 129 MPa	General Information			
Features Lubrication RoHS Compliance Contact manufacturer Appearance Black Natural color Forms Particle Processing Method Injection molding Physical Nominal Value Unit Test Method Specific Gravity 1.60 g/cm² ASTM D792 Molding Shrinkage - Flow (3.18 mm) 0.40 % ASTM D995 Water Absorption (23°C, 24 hr) 0.50 % ASTM D770 Hardness Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 120 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Tensile Elongation (Break) 2	Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
RoHS Compliance Contact manufacturer Appearance Black Natural color Forms Particle Processing Method Injection molding Physical Nominal Value Unit Test Method Specific Gravity 1.60 g/cm² ASTM D792 Molding Shrinkage - Flow (3.18 mm) 0.40 % ASTM D955 Water Absorption (23°C, 24 hr) 0.50 % ASTM D770 Hardness Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 120 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Flexural Strength 138 MPa ASTM D638 Flexural Strength 207 MPa ASTM D790 Compressive Strength 207 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) Q25 ASTM D1894 Impact Nominal Value	Additive	PTFE lubricant (15%)		
Particle	Features	Lubrication		
Natural color Particle	RoHS Compliance	Contact manufacturer		
Forms Particle Processing Method Injection molding Physical Nominal Value Unit Test Method Specific Gravity 1.60 g/cm² ASTM D792 Molding Shrinkage - Flow (3.18 mm) 0.40 % ASTM D555 Water Absorption (23°C, 24 hr) 0.50 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 120 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Etength 138 MPa ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Flexural Modulus 8960 MPa ASTM D790 Compressive Strength 124 MPa ASTM D790 Compressive Strength 124 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) ASTM D695 ASTM D1894 Impact Nominal Value Unit Test Metho	Appearance	Black		
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Physical Nominal Value Unit Test Method Specific Gravity 1.60 g/cm³ ASTM D792 Molding Shrinkage - Flow (3.18 mm) 0.40 % ASTM D955 Water Absorption (23°C, 24 hr) 0.50 % ASTM D570 Hardness Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 120 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Strength 138 MPa ASTM D638 Tensile Strength (Break) 2.0 % ASTM D638 Flexural Modulus 8960 MPa ASTM D790 Flexural Strength 207 MPa ASTM D790 Compressive Strength 124 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) 0.25 ASTM D1894 Impact Nominal Value Unit Test Method Notched Izod Impact (3.18 mm) 530 J/m ASTM D481	Forms	Particle		
Specific Gravity	Processing Method	Injection molding		
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Hardness Nominal Value Unit Test Method Rockwell Hardness (R-Scale) 120 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Strength 138 MPa ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Flexural Modulus 8960 MPa ASTM D790 Flexural Strength 207 MPa ASTM D790 Compressive Strength 124 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) 0.25 ASTM D894 Impact Nominal Value Unit Test Method Notched Izod Impact (3.18 mm) 530 J/m ASTM D4812 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 260 °C ASTM D648	Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955
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Mechanical Nominal Value Unit Test Method Tensile Modulus 10300 MPa ASTM D638 Tensile Strength 138 MPa ASTM D638 Tensile Elongation (Break) 2.0 % ASTM D638 Flexural Modulus 8960 MPa ASTM D790 Flexural Strength 207 MPa ASTM D790 Compressive Strength 124 MPa ASTM D790 Compressive Strength 124 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) 0.25 MPa ASTM D894 Impact Nominal Value Unit Test Method Notched Izod Impact (3.18 mm) 69 J/m ASTM D256 Unnotched Izod Impact (3.18 mm) 530 J/m ASTM D4812 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 260 °C ASTM D648	Hardness	Nominal Value	Unit	Test Method
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Flexural Strength 207 MPa ASTM D790 Compressive Strength 124 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) 0.25 ASTM D1894 Impact Nominal Value Unit Test Method Notched Izod Impact (3.18 mm) 69 J/m ASTM D256 Unnotched Izod Impact (3.18 mm) 530 J/m ASTM D4812 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, not annealed 260 °C ASTM D648	Tensile Elongation (Break)	2.0	%	ASTM D638
Compressive Strength 124 MPa ASTM D695 Coefficient of Friction (With Metal-Dynamic) 0.25 ASTM D1894 Impact Nominal Value Unit Test Method Notched Izod Impact (3.18 mm) 69 J/m ASTM D256 Unnotched Izod Impact (3.18 mm) 530 J/m ASTM D4812 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, not annealed 260 °C ASTM D648	Flexural Modulus	8960	MPa	ASTM D790
Coefficient of Friction (With Metal-Dynamic) Impact Nominal Value Unit Test Method Notched Izod Impact (3.18 mm) 69 Unnotched Izod Impact (3.18 mm) 530 J/m ASTM D256 Unnotched Izod Impact (3.18 mm) Thermal Nominal Value Unit Test Method ASTM D4812 Thermal Nominal Value Unit Test Method ASTM D648 0.45 MPa, not annealed 260 °C ASTM D648	Flexural Strength	207	MPa	ASTM D790
Metal-Dynamic)0.25ASTM D1894ImpactNominal ValueUnitTest MethodNotched Izod Impact (3.18 mm)69J/mASTM D256Unnotched Izod Impact (3.18 mm)530J/mASTM D4812ThermalNominal ValueUnitTest MethodDeflection Temperature Under LoadCASTM D6480.45 MPa, not annealed260°CASTM D648	Compressive Strength	124	MPa	ASTM D695
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Unnotched Izod Impact (3.18 mm) 530 J/m ASTM D4812 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, not annealed 260 °C ASTM D648	Impact	Nominal Value	Unit	Test Method
Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, not annealed 260 °C ASTM D648	Notched Izod Impact (3.18 mm)	69	J/m	ASTM D256
Deflection Temperature Under Load 0.45 MPa, not annealed 260 °C ASTM D648 ASTM D648	Unnotched Izod Impact (3.18 mm)	530	J/m	ASTM D4812
0.45 MPa, not annealed 260 °C ASTM D648	Thermal	Nominal Value	Unit	Test Method
	Deflection Temperature Under Load			ASTM D648
1.8 MPa, not annealed 249 °C ASTM D648	0.45 MPa, not annealed	260	°C	ASTM D648
	1.8 MPa, not annealed	249	°C	ASTM D648

CLTE - Flow	3.6E-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+14	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	НВ		UL 94

Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25 in.: 6 mil/in.Tensile Elongation, ASTM D-638: 2-3%Wear Factor, K, ASTM D-3702: 20E-10in³/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.25Both the wear factor and coefficient of friction were tested on a Falex Model No.6 Wear Testing Machine, at 50 FPM, 2000 PV, against C1018 Steel 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	274 - 288	°C
Middle Temperature	274 - 288	°C
Front Temperature	274 - 288	°C
Mold Temperature	65.6 - 107	°C
Injection Pressure	82.7 - 138	MPa

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