

# RTP 205A UV

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.  
Glass reinforced nylon 6 materials offer significant improvements in strength, moduli, and deflection temperature over the base resin. They usually display improved moldability over glass reinforced nylon 6/6 materials with slight decreases in properties.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	UV stabilizer		
Features	Good UV resistance		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.36	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	1.2	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	119		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8960	MPa	ASTM D638
Tensile Strength	159	MPa	ASTM D638
Tensile Elongation (Break)	3.3	%	ASTM D638
Flexural Modulus	7580	MPa	ASTM D790
Flexural Strength	241	MPa	ASTM D790
Compressive Strength	152	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	130	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	1200	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	3.2E-5	cm/cm/°C	ASTM D696

Thermal Conductivity	0.50	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.80		ASTM D150
Dissipation Factor (1 MHz)	0.017		ASTM D150
Arc Resistance	120	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, RTP Tested)	HB		UL 94
Additional Information			
Molding Shrinkage, ASTM D955, Linear-Flow, 0.25 in.: 0.005 in/in			
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	

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#### Recommended distributors for this material

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