

# RTP 2205 TFE 15

Polyetheretherketone

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.  
PEEK is a high performance crystalline thermoplastic combining the chemical and thermal properties of some thermosets and ease of processability.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	PTFE lubricant (15%)		
Features	High strength		
	Good chemical resistance		
	Good wear resistance		
	Thermal stability, good		
	Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.65	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.011	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	12400	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	145	MPa	ASTM D638
--	165	MPa	ASTM D638
Tensile Elongation (Break)	1.5	%	ASTM D638
Flexural Modulus	11000	MPa	ASTM D790
Flexural Strength			ASTM D790
--	234	MPa	ASTM D790
Yield	234	MPa	ASTM D790
Coefficient of Friction (With Metal-Dynamic)	0.20		ASTM D1894
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact (3.18 mm)	110	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	800	J/m	ASTM D4812
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (1.8 MPa, Unannealed)	288	°C	ASTM D648
CLTE - Flow	2.2E-5	cm/cm/°C	ASTM D696
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	15	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.20		ASTM D150
Dissipation Factor (1 MHz)	5.0E-3		ASTM D150
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (1.59 mm, RTP Tested)	V-0		UL 94
<b>Additional Information</b>			
Molding Shrinkage, ASTM D955, 0.25in: 3 mil/inWear Factor, K, ASTM D-3702: 75E-10in <sup>3</sup> /min/ft/lb/hrThe coefficient of friction was 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.			
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Time	3.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	357 - 427	°C	
Middle Temperature	357 - 427	°C	
Front Temperature	357 - 427	°C	
Mold Temperature	121 - 204	°C	
Injection Pressure	82.7 - 103	MPa	

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#### Recommended distributors for this material

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