

DURACON® TR-20

Polyplastics - Acetal (POM) Copolymer

General Information

Product Description

Mineral Reinforced

High Rigidity, Low Warpage

General

Filler / Reinforcement	• Mineral
Features	• Copolymer • High Rigidity • Low Warpage
UL File Number	• E45034
Forms	• Pellets
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >POM-TD15<

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.53	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	21	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	16	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	1.6	%	
Flow : 0.0787 in	1.7	%	
Water Absorption (24 hr, 73°F, 0.0394 in)	0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	653000	psi	ISO 527-1
Tensile Stress	8560	psi	ISO 527-2
Tensile Strain (Break)	5.0	%	ISO 527-2
Flexural Modulus	595000	psi	ISO 178
Flexural Stress	13900	psi	ISO 178
Coefficient of Friction			JIS K7218
Dynamic ³	0.40		
vs. Steel - Dynamic ⁴	0.50		
Wear Factor			JIS K7218
71 psi, 59 ft/min ⁵	5.0	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁶	250	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
71 psi, 59 ft/min ⁷	1500	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁸	4500	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.4	ft·lb/in ²	ISO 179/1eA
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	75		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	257	°F	ISO 75-2/A
CLTE - Flow (73 to 131°F)	4.4E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	4.4E-5	in/in/°F	Internal Method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	9.0E+15	ohms	IEC 60093
Volume Resistivity	2.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	530	V/mil	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Additional Information	Nominal Value	Unit	
Color Number	CF2001/CD3501		

Notes

¹ Typical properties: these are not to be construed as specifications.

² 60x60x2mmt, Cavity Pressure 60 MPa

³ vs M90-44, 0.06 MPa, 15 cm/s

⁴ 0.49 MPa, 30 cm/s

⁵ Thrust, vs C-Steel, Steel Side

⁶ Thrust, vs M90-44, Material Side

⁷ Thrust, vs C-Steel, Material Side

⁸ Thrust, vs M90-44, M90-44 Side