DURACON® TW-51

Polyplastics - Acetal (POM) Copolymer + PE

General Information		
Product Description		
High Sliding		
High Rigidity, Low Warpage		
General		
Features	• Copolymer • High Rigidity	• Low Friction • Low Warpage
UL File Number	• E45034	
Forms	• Pellets	
Processing Method	• Injection Molding	
Part Marking Code (ISO 11469)	• >POM+PE-MD30<	

Properties [1]			
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.54	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.2	cm³/10min	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	703000	psi	ISO 527-1
Tensile Stress	5800	psi	ISO 527-2
Tensile Strain (Break)	4.0	%	ISO 527-2
Flexural Modulus	645000	psi	ISO 178
Flexural Stress	10400	psi	ISO 178
Coefficient of Friction			JIS K7218
Dynamic [3]	0.22		
vs. Steel - Dynamic [4]	0.30		
Wear Factor			JIS K7218
140 psi, 59 ft/min [5]	< 0.50	10^-10 in³·min/ft·lb·hr	
140 psi, 59 ft/min [6]	50	10^-10 in³·min/ft·lb·hr	
8.7 psi, 30 ft/min [7]	150	10^-10 in³·min/ft·lb·hr	
8.7 psi, 30 ft/min [8]	150	10^-10 in³·min/ft·lb·hr	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	0.95	ft·lb/in²	ISO 179/1eA
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	50		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed	194	°F	
CLTE - Flow (73 to 131°F)	5.0E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	5.0E-5	in/in/°F	Internal Method
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	HB		UL 94
Additional Information	**Nominal Value**	**Unit**	
Color Number	CF2001		

Notes

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

[2] 60×60×2mmt, Cavity Pressure 60 MPa

[3] vs M90-44, 0.06 MPa, 15 cm/s

[4] 0.98 MPa, 30 cm/s

[5] vs C-Steel, Steel Side

[6] vs C-Steel, Material Side

[7] vs M90-44, Material Side

[8] vs M90-44, M90-44 Side