DURACON® CH-10

Polyplastics - Acetal (POM) Copolymer

General Information

Product Description	
Electric Conductive	
CF10% Reinforced, Low Wear	

General		
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight	
Features	• Electrically Conductive	• Wear Resistant
UL File Number	• E45034	
Forms	• Pellets	
Processing Method	• Injection Molding	
Part Marking Code (ISO 11469)	• >POM-CF10<	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.44	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	4.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	3.3	cm³/10min	ISO 1133
Molding Shrinkage [2]			ISO 294-4
Across Flow : 0.0787 in	0.90	%	
Flow : 0.0787 in	1.1	%	
Water Absorption (24 hr, 73°F, 0.0394 in)	0.80	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.28E+6	psi	ISO 527-1
Tensile Stress	16800	psi	ISO 527-2
Tensile Strain (Break)	2.0	%	ISO 527-2
Flexural Modulus	1.09E+6	psi	ISO 178
Flexural Stress	24700	psi	ISO 178
Coefficient of Friction			
Dynamic [3]	0.37		ASTM D1894
vs. Steel - Dynamic [4]	0.28		JIS K7218
Wear Factor			JIS K7218
71 psi, 59 ft/min [5]	5.0	10^-10 in³·min/ft·lb·hr	
8.7 psi, 30 ft/min [6]	99	10^-10 in³·min/ft·lb·hr	
71 psi, 59 ft/min [7]	250	10^-10 in³·min/ft·lb·hr	
8.7 psi, 30 ft/min [8]	5000	10^-10 in³·min/ft·lb·hr	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	1.4	ft·lb/in²	ISO 179/1eA
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	95		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed	325	°F	
CLTE - Flow (73 to 131°F)	1.1E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	5.0E-5	in/in/°F	Internal Method
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	5.0E+3	ohms	IEC 60093
Volume Resistivity	2.0E+4	ohms·cm	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	HB		UL 94
Additional Information	**Nominal Value**	**Unit**	
Color Number	CD3501		

Notes

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

[2] 60x60x2mmt, Cavity Pressure 60 MPa

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

[4] 0.49 MPa, 30 cm/s

[5] vs C-Steel, Steel Side

[6] vs M90-44, Material Side

[7] vs C-Steel, Material Side

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