

DURACON® TW-31

Polyplastics - Acetal (POM) Copolymer + PE

General Information

Product Description

High Sliding

High Rigidity, Low Warpage

General

Features	<ul style="list-style-type: none"> Copolymer High Rigidity 	<ul style="list-style-type: none"> Low Friction Low Warpage
UL File Number	<ul style="list-style-type: none"> E45034 	
Forms	<ul style="list-style-type: none"> Pellets 	
Processing Method	<ul style="list-style-type: none"> Injection Molding 	
Part Marking Code (ISO 11469)	<ul style="list-style-type: none"> >POM+PE-MD15< 	

Properties¹

Physical	Nominal Value	Unit	Test Method
Density	1.47	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	5.0	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	1.9	%	
Flow : 0.0787 in	2.1	%	
Water Absorption (24 hr, 73°F, 0.0394 in)	0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	544000	psi	ISO 527-1
Tensile Stress	6820	psi	ISO 527-2
Tensile Strain (Break)	10	%	ISO 527-2
Flexural Modulus	500000	psi	ISO 178
Flexural Stress	11700	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 in ³ ·min/ft·lb·hr	
140 psi, 59 ft/min ⁶	99	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁷	200	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁸	300	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.6	ft·lb/in ²	ISO 179/1eA
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	68		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	194	°F	ISO 75-2/A
CLTE - Flow (73 to 131°F)	5.6E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	5.6E-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