

DURACON® PM27S01N

Polyplastics - Acetal (POM) Copolymer

General Information

Product Description

Medical

High Flow, Fast Molding Cycle

General

Features	<ul style="list-style-type: none"> • Biocompatible • Copolymer • Fast Molding Cycle 	<ul style="list-style-type: none"> • High Flow • High Friction • Medium Viscosity 	<ul style="list-style-type: none"> • Wear Resistant
Uses	<ul style="list-style-type: none"> • Medical/Healthcare Applications 		
Agency Ratings	<ul style="list-style-type: none"> • DMF • EU 10/2011 	<ul style="list-style-type: none"> • FDA 21 CFR 177.2470 • ISO 10993 	<ul style="list-style-type: none"> • MAF • USP Class VI
Part Marking Code (ISO 11469)	<ul style="list-style-type: none"> • >POM< 		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	27	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	23	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	2.2	%	
Flow : 0.0787 in	2.1	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	421000	psi	ISO 527-1
Tensile Stress	9570	psi	ISO 527-2
Nominal Tensile Strain at Break	20	%	ISO 527-2
Flexural Modulus	377000	psi	ISO 178
Flexural Stress	13200	psi	ISO 178
Coefficient of Friction ³ (Dynamic)	0.40		JIS K7218
Wear Factor			JIS K7218
140 psi, 59 ft/min ⁴	< 0.50	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
140 psi, 59 ft/min ⁵	50	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁶	1500	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁷	3000	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	3.3	ft·lb/in ²	ISO 179/1eA
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	88		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed	203	°F	

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Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (73 to 131°F)	6.1E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	6.1E-5	in/in/°F	Internal Method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	480	V/mil	IEC 60243-1
Additional Information	Nominal Value	Unit	
Color Number	WK2001		

Notes

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

² 60x60x2mmt, Cavity Pressure 60 MPa

³ vs C-Steel, pressure 0.98MPa, 30cm/s

⁴ vs C-Steel, Steel Side

⁵ vs C-Steel, Material Side

⁶ vs M90-44, Material Side

⁷ vs M90-44, M90-44 Side