

Polyplastics DURACON[®] M90-44

Polyplastics DURACON[®] M90 - 44 is a medium - viscosity polyoxymethylene copolymer compliant with RoHS and UL standards, renowned for its good balance of mechanical, chemical, and thermal properties,

Physical property	Standard	Value	Unit
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Density	ISO 1183	1.41	g/cm ³
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ShrinkageFlow 60x60x2mm	ISO 294	2	%
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Shrinkage xFlow 60x60x2mm	ISO 294	2	%
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Water Absorption 23°C 24hr 1.00mm	ISO 62	0.5	%
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Melt Index 190°C 2.16kg	ISO 1133	9	g/10min
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Melt Index 190°C 2.16kg	ISO 1133	8	cm ³ /10min
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Hardness	Standard	Value	Unit
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Rockwell Hardness M(Scale)	ISO 2039	80	
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Mechanical behavior	Standard	Value	Unit
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Tensile Modulus	ISO 527	2500	MPa
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Tensile Strength	ISO 527	59	MPa
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Elongation Break	ISO 527	40	%
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Flexural Strength	ISO 178	81	MPa
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Flexural Modulus	ISO 178	2350	MPa
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Charpy Notch Impact 23°C	ISO 179	8	kJ/m ²
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Friction Coefficient Dynamic VS C- Steel 0.98MPa 0.3m/s thrust	JIS K7218	0.4	
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Friction Coefficient Dynamic VS M90-44 0.06MPa 0.15m/s thrust	JIS K7218	0.37	
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Specific Wear Rate VS C-Steel 0.3m/s 0.98MPa Material Side thrust	JIS K7218	0.0003	mm ³ /(N · km)
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Specific Wear	Rate VS C-Steel 0.3m/s 0.98MPa Steel Side thrust	JIS K7218	0.00001	mm ³ /(N · km)
Thermal		Standard	Value	Unit
HDT	1.8MPa	ISO 75	90	°C
CLE	Flow 23~55°C	INTERNAL METHOD	0.00012	cm/cm/°C
CLE	xFlow 23~55°C	INTERNAL METHOD	0.00012	cm/cm/°C
Electrical properties		Standard	Value	Unit
Volume Resistivity		IEC 60093	1E+14	Ω .cm
Surface Resistivity		IEC 60093	1E+16	Ω
Dielectric Strength	3.0mm	IEC 60243	19	KV/mm
Flammability		Standard	Value	Unit
Flame Rating	All Color 0.75mm	UL94	HB	
Flame Rating	All Color 1.5mm	UL94	HB	
Flame Rating	All Color 3.0mm	UL94	HB	