

**DURACON® M270-57**

Polyplastics - Acetal (POM) Copolymer

## General Information

**Product Description**

Food Contact Safety, Multi-national Certification of Drinkingwater Safety

High Flow, Fast Molding Cycle

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Copolymer • Fast Molding Cycle • Food Contact Acceptable • High Flow
Uses	• Potable Water Applications
UL File Number	• E45034
Forms	• Pellets
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >POM<

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm <sup>3</sup>	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 <sup>3</sup> /10min	ISO 1133
Molding Shrinkage <sup>2</sup>			ISO 294-4
Across Flow : 0.0787 in	2.2	%	
Flow : 0.0787 in	2.1	%	
Water Absorption (24 hr, 73°F, 0.0394 in)	0.60	%	ISO 62
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 <sup>3</sup> (vs. Steel - Dynamic)	0.40		JIS K7218
Wear Factor			JIS K7218
140 psi, 59 ft/min <sup>4</sup>	< 0.50	10 <sup>-4</sup> -10 <sup>-10</sup> in <sup>3</sup> ·min/ft·lb·hr	
140 psi, 59 ft/min <sup>5</sup>	50	10 <sup>-4</sup> -10 <sup>-10</sup> in <sup>3</sup> ·min/ft·lb·hr	
8.7 psi, 30 ft/min <sup>6</sup>	1500	10 <sup>-4</sup> -10 <sup>-10</sup> in <sup>3</sup> ·min/ft·lb·hr	
8.7 psi, 30 ft/min <sup>7</sup>	3000	10 <sup>-4</sup> -10 <sup>-10</sup> in <sup>3</sup> ·min/ft·lb·hr	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	3.3	ft·lb/in <sup>2</sup>	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 (264 psi, Unannealed)	203	°F	ISO 75-2/A
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
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating	HB		UL 94
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Color Number	WK2001		

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 60x60x2mmt, Cavity Pressure 60 MPa

<sup>3</sup> 0.98 MPa, 30 cm/s

<sup>4</sup> vs C-Steel, steel side

<sup>5</sup> vs C-Steel, material side

<sup>6</sup> vs M90-44, material side

<sup>7</sup> vs M90-44, M90-44 side

