

DURACON® AW-09

Polyplastics - Acetal (POM) Copolymer + PE

General Information

Product Description

High Sliding

High Viscosity

General

Features	• Copolymer	• High Viscosity	• Low Friction
UL File Number	• E45034		
Forms	• Pellets		
Processing Method	• Injection Molding		
Part Marking Code (ISO 11469)	• >POM+PE<		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.37	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.5	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	2.2	%	
Flow : 0.0787 in	2.6	%	
Water Absorption (24 hr, 73°F, 0.0394 in)	0.70	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	319000	psi	ISO 527-1
Tensile Stress	7830	psi	ISO 527-2
Nominal Tensile Strain at Break	30	%	ISO 527-2
Flexural Modulus	297000	psi	ISO 178
Flexural Stress	10200	psi	ISO 178
Coefficient of Friction			JIS K7218
Dynamic ³	0.30		
vs. Steel - Dynamic ⁴	0.16		
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	9.9	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁷	350	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁸	690	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	3.8	ft·lb/in ²	ISO 179/1eA
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	70		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	158	°F	ISO 75-2/A
CLTE - Flow (73 to 131°F)	7.2E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	7.2E-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		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 194	°F
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	374 to 410	°F
Mold Temperature	140 to 176	°F
Injection Pressure	7250 to 14500	psi
Screw Speed	100 to 150	rpm
Injection Velocity	12 to 118	in/min

Notes

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

² 60x60x2mmt, 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