CELCON® AF-11

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- Aaramid powder-filled wear-resistance grade for general injection molding
- Suitable for parts requiring strong friction and wear resistance, particularly in contact with other plastics

Product information

Resin Identification	POM-Z5		ISO 1043
Part Marking Code	>POM-Z5<		ISO 11469

Rheological properties

Melt mass-flow rate	2	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage, parallel	1.9	%	ISO 294-4, 2577

Typical mechanical properties

Tensile stress at yield, 50mm/min	8400	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	10	%	ISO 527-1/-2
Nominal strain at break	11	%	ISO 527-1/-2
Flexural modulus	392000	psi	ISO 178
Flexural strength	12000	psi	ISO 178
Charpy notched impact strength, 23°C	1.9	ftlb/in²	ISO 179/1eA
Poisson's ratio	0.378		

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3

Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10

Electrical properties

Volume resistivity	1E14	Ohm.m	IEC 62631-3-1
Surface resistivity	1E16	Ohm	IEC 62631-3-2

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	0.0505	lb/in³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	383	°F
Min. melt temperature	356	°F
Max. melt temperature	410	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	158	°F

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Min. mold temperature	140	°F
Max. mold temperature	176	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3	s

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Hyundai	MS237-09 Type E-1	Pyeongtaek, Korea

Characteristics

Processing	Injection Molding
Special characteristics	Low wear / Low friction

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