

DPS DYN-RAC109 BK

Acetal (POM) Copolymer
Dynamic Polymer Solutions

Technical Data

Product Description			
Polyoxymethylene Copolymer, 9 melt black Produced with recycled content			
General			
Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Availability	• North America		
Recycled Content	• Yes		
Features	• Copolymer		
Appearance	• Black		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.41	1.41 g/cm³	ASTM D792
73°F (23°C)	1.41 g/cm³	1.41 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	10 g/10 min	10 g/10 min	ASTM D1238 ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	395000 psi	2720 MPa	ISO 527-1/10
Tensile Strength			
Yield ³	9000 psi	62.1 MPa	ASTM D638
Yield	8990 psi	62.0 MPa	ISO 527-2/50
Tensile Elongation			
Break ³	30 %	30 %	ASTM D638
Break	25 %	25 %	ISO 527-2/50
Flexural Modulus ⁴			
--	350000 psi	2410 MPa	ASTM D790
--	363000 psi	2500 MPa	ISO 178
Flexural Strength ⁴			
--	11800 psi	81.2 MPa	ASTM D790
--	10400 psi	72.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	1.7 ft·lb/in²	3.5 kJ/m²	ISO 179
Notched Izod Impact			
73°F (23°C)	1.4 ft·lb/in	75 J/m	ASTM D256
73°F (23°C)	4.0 ft·lb/in²	8.5 kJ/m²	ISO 180
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	313 °F	156 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	316 °F	158 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	230 °F	110 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	214 °F	101 °C	ISO 75-2/A
Peak Melting Temperature	331 °F	166 °C	ASTM D3418 ISO 3146



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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	77 to 104 °F	25 to 40 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	< 0.050 %	< 0.050 %
Processing (Melt) Temp	410 to 464 °F	210 to 240 °C
Mold Temperature	122 to 185 °F	50 to 85 °C
Injection Rate	Slow	Slow
Back Pressure	80.0 to 120 psi	0.552 to 0.827 MPa

Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² Typical properties: these are not to be construed as specifications.
- ³ 2.0 in/min (50 mm/min)
- ⁴ 0.20 in/min (5.0 mm/min)

