

Shell Carilon® D26VM100 Polyketone, High-Flow Injection Molding Grade (discontinued **)

Category : Polymer , Thermoplastic , Polyketone

Material Notes:

Shell announced in Feb. 2000 that the Carilon product line is being discontinued. CARILON Polymer D26VM100 is a high-flow injection molding grade with mechanical properties which classify it as an engineering thermoplastic. This grade exhibits very good processability, good impact resistance, high resilience and good creep performance. CARILON Polymer D26VM100 can also withstand short-term exposure to elevated temperatures. Moreover this polymer exhibits a high resistance to hydrocarbons, solvents, salt solutions, weak acids and weak bases. CARILON Polymer D26VM100 is a high-flow, low-viscosity polymer that should be considered for moldings with long flow paths or thin walls. This grade is very easy to process on standard injection molding equipment. Cycle times are generally short. Parts show good mold definition with glossy mar-resistant surfaces. CARILON Polymers' low moisture sensitivity means that no conditioning of parts before assembly or use is necessary. Data provided by Shell Chemical.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Shell-Carilon-D26VM100-Polyketone-High-Flow-Injection-Molding-Grade-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.24 g/cc	0.0448 lb/in ³	ASTM D792
Water Absorption	0.45 %	0.45 %	24 hour immersion; ASTM D570
Moisture Absorption at Equilibrium	0.50 %	0.50 %	at 50% RH at Equilibrium; ASTM D570
Water Absorption at Saturation	2.2 %	2.2 %	at saturation; ASTM D570
Linear Mold Shrinkage, Flow	0.020 cm/cm	0.020 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.021 cm/cm	0.021 in/in	ASTM D955
Melt Flow	60 g/10 min @Load 2.16 kg, Temperature 240 °C	60 g/10 min @Load 4.76 lb, Temperature 464 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	105	105	ASTM D785
Hardness, Shore D	77	77	ISO 868
Tensile Strength, Ultimate	45.0 MPa	6530 psi	ASTM D638
Tensile Strength, Yield	60.0 MPa	8700 psi	ASTM D638
Elongation at Break	>= 250 %	>= 250 %	ASTM D638
Elongation at Yield	20 %	20 %	ASTM D638

Tensile Modulus Mechanical Properties	1.50 GPa Metric	218 ksi English	ASTM D638 Comments
Flexural Strength	59.0 MPa	8560 psi	at 5% strain; ASTM D790
Flexural Modulus	1.50 GPa	218 ksi	ASTM D790
Izod Impact, Notched	0.950 J/cm	1.78 ft-lb/in	ASTM D256
Izod Impact, Unnotched	NB	NB	ASTM D256
Gardner Impact	>= 45.0 J	>= 33.2 ft-lb	

Thermal Properties	Metric	English	Comments
CTE, linear	110 $\mu\text{m/m-}^{\circ}\text{C}$	61.1 $\mu\text{in/in-}^{\circ}\text{F}$	ASTM E831
	@Temperature 25.0 - 55.0 $^{\circ}\text{C}$	@Temperature 77.0 - 131 $^{\circ}\text{F}$	
Melting Point	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	203 $^{\circ}\text{C}$	397 $^{\circ}\text{F}$	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	105 $^{\circ}\text{C}$	221 $^{\circ}\text{F}$	ASTM D648
Flammability, UL94	HB	HB	
Oxygen Index	22 %	22 %	ISO 4589

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	ASTM D257
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	ASTM D257
Dielectric Constant	5.3	5.3	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	6.0	6.0	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	18.0 kV/mm	457 kV/in	Short Term; ASTM D149
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Dissipation Factor	0.010	0.010	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
	0.050	0.050	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	

Comparative Tracking Index Electrical Properties	600 V Metric	600 V English	UL 746A Comments
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