

TECHNYL® D 218CR V50 BK

DOMO Engineering Plastics - Polyamide 610 + PA 66

General Information

Product Description

*Previously TECHNYL eXten D 218CR V50 BLACK

TECHNYL D 218CR V50 BK is a high glass reinforced grade based on polyamide blend of polyamide 6.10 and polyamide 66, heat stabilized, for injection moulding. This grade shows outstanding resistance to hydrolysis, very low water uptake, enhanced dimension stability and chemical resistance to long life automotive coolants. It also offers an excellent crack resistance to calcium chloride road salts, good injection process ability, high surface aspect quality, and overall high thermo-mechanical properties.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Additive	• Heat Stabilizer • Hydrolysis Resistant
Features	• Chemical Resistant • Good Surface Finish • Heat Aging Resistant • Heat Stabilized • Hydrolysis Resistant • Hydrolytically Stable • Low Moisture Absorption • Renewable Resource Content • Road Salt Resistant • Ultra High Glycol Resistance
Uses	• Automotive Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding
ISO Designation (ISO 16396)	• PA610+PA66,GF50,MHW,S14-160
Resin ID (ISO 1043)	• PA610+PA66-GF50

 Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.54	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.70 to 0.90	--	%	
Flow	0.30 to 0.50	--	%	
Water Absorption (24 hr, 73°F)	0.45 to 0.50	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.1	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.44E+6	1.68E+6	psi	ISO 527-1
Tensile Stress (Break)	32600	23900	psi	ISO 527-2
Tensile Strain (Break)	3.0	5.1	%	ISO 527-2
Flexural Modulus	1.97E+6	1.36E+6	psi	ISO 178
Flexural Stress	50000	36300	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	6.7	--	ft·lb/in ²	
73°F	8.1	9.5	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	52	--	ft·lb/in ²	
73°F	48	48	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	417	--	°F	ISO 75-2/A
Melting Temperature ²	500	--	°F	ISO 11357-3



Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.0394 in)	< 3.9	--	in/min	FMVSS 302

Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Drying Time	4.0 hr
Suggested Max Moisture	0.15 %
Rear Temperature	518 to 536 °F
Middle Temperature	536 to 554 °F
Front Temperature	536 to 572 °F
Mold Temperature	158 to 212 °F

Injection Notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Notes

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

² 10°C/min

