

TECHNYL® 4EARTH® AC9E 218 C10 Y20 NC H

DOMO Engineering Plastics - Polyamide 66/6 Copolymer

General Information

Product Description

Recycled polyamide 66/6, 10% carbon fiber reinforced, heat-aging stabilized, improved tribological properties, for injection molding, natural color

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight		
Additive	• Heat Stabilizer		
Recycled Content	• Yes, 75%		
Features	• Heat Aging Resistant • Heat Stabilized	• High Stiffness • Wear Resistant	
Uses	• Automotive Applications	• Consumer Applications	• Industrial Applications
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66/6,CF10(R75),MH,S14-090		
Resin ID (ISO 1043)	• PA66/6(REC)-CF10		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.19	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.60 to 0.80	--	%	
Flow	0.10 to 0.30	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	2.5 to 2.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.31E+6	653000	psi	ISO 527-1
Tensile Stress (Break)	21000	12300	psi	ISO 527-2
Tensile Strain (Break)	1.8	5.5	%	ISO 527-2
Flexural Modulus	986000	508000	psi	ISO 178
Flexural Stress	29000	16000	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.7	3.1	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	13	36	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	1.7	--	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	12	--	ft·lb/in ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	482	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	455	--	°F	ISO 75-2/A
Vicat Softening Temperature	444	--	°F	ISO 306
Melting Temperature ²	504	--	°F	ISO 11357-3
Thermal Conductivity				ASTM E1461
-- ³	2.8	--	Btu·in/hr/ft ² /°F	
-- ⁴	4.2	--	Btu·in/hr/ft ² /°F	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	10	--	ohms	IEC 62631-3-2



Volume Resistivity	10	--	ohms·m	IEC 62631-3-1
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.0394 in)	< 3.9	--	in/min	FMVSS 302

Processing Information

Injection	Dry Unit
Drying Temperature	167 to 185 °F
Drying Time	2.0 to 4.0 hr
Dew Point	< -22 °F
Processing (Melt) Temp	518 to 572 °F
Mold Temperature	176 to 230 °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
³ through plane
⁴ in plane

