

General Information
Product Description

33% Glass Reinforced

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6-GF33		

ASTM & ISO Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.40	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.3	--	%	
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	1.9	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	10000	6600	MPa	ISO 527-2
Tensile Stress (Break)	180	110	MPa	ISO 527-2
Tensile Strain (Break)	3.5	5.0	%	ISO 527-2
Flexural Modulus	9200	--	MPa	ISO 178
Flexural Stress	250	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	11	11	kJ/m ²	
23°C	15	30	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	70	kJ/m ²	
23°C	95	110	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
0.45 MPa, Unannealed	220	--	°C	
Heat Deflection Temperature				ISO 75-2/A
1.8 MPa, Unannealed	210	--	°C	
Melting Temperature ²	220	--	°C	ISO 11357-3
CLTE - Flow	2.0E-5	--	cm/cm/°C	ISO 11359-2
CLTE - Transverse	7.0E-5	--	cm/cm/°C	ISO 11359-2

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Akulon® K224-G6U

DSM Engineering Plastics - Polyamide 6

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+13	ohms-cm	IEC 60093
Electric Strength	30	25	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.50	20.0		
1 MHz	3.30	5.00		
Dissipation Factor				IEC 60250
100 Hz	5.0E-3	0.30		
1 MHz	0.015	0.12		
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.71 mm	HB	--		
1.5 mm	HB	--		

Notes

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

² 10°C/min