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AKRO-PLASTIC
Think Polyamide

AKROMID® A3 GF 30 1 natural

Polyamide 66

Product Description

AKROMID A3 GF 30 1 natural is a 30% glass fiber reinforced, heat ageing resistant polyamide 6.6 with high rigidity and strength and light inherent color
Applications are mainly components in mechanical engineering and in the automotive industry

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Good Heat Aging Resistance	• High Stiffness	• High Strength
Uses	• Automotive Applications	• Engineering Parts	
Appearance	• Natural Color		
Resin ID (ISO 1043)	• PA66 GF30		

Physical	Dry	Conditioned	Unit	Test Method
Density (73°F)	1.36	--	g/cm³	ISO 1183
Spiral Flow [2, 3]	32.7	--	in	Internal Method
Molding Shrinkage				ISO 294-4
Across Flow	1.3	--	%	
Flow	0.20	--	%	
Water Absorption (Saturation, 73°F)	5.2 to 5.8	--	%	ISO 62
Humidity Absorption - 62% RH (158°F)	1.9 to 2.1	--	%	ISO 1110
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1.45E+6	1.03E+6	psi	ISO 527-2/1
Tensile Stress (Break)	29000	18900	psi	ISO 527-2/5
Tensile Strain (Break)	3.0	5.5	%	ISO 527-2/5
Flexural Modulus [4]	1.28E+6	1.04E+6	psi	ISO 178
Flexural Strength [4]	41300	31900	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	5.2	--	ft·lb/in²	
73°F	5.7	7.6	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	38	--	ft·lb/in²	
73°F	40	45	ft·lb/in²	
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Ball Indentation Hardness (H 961/30)	34800	--	psi	ISO 2039-1
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	500	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	491	--	°F	
Heat Deflection Temperature				ISO 75-2/C
1160 psi, Unannealed	410	--	°F	
Melting Temperature [5]	504	--	°F	DIN EN 11357-1
CLTE - Flow (73 to 176°F)	0.000011	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 176°F)	0.000053	--	in/in/°F	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+12	--	ohm	IEC 60093
Volume Resistivity	1.0E+13	--	ohm·cm	IEC 60093
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate [6] (0.0394 in)	< 3.9	--	in/min	FMVSS 302
Flame Rating (0.0315 in)	HB	--		UL 94
Glow Wire Flammability Index (0.0630 in)	1200	--	°F	IEC 60695-2-12