

TECAMID® 66 natural - Thin Gauge (sheet, coil, strip)

Chemical Designation
PA 66 (Polyamide 66)

Colour
natural opaque

Density
1.14 g/cm³

production process: calendered

Main features

very good slide and wear properties
good machinability
broad chemical compatibility
resistant to cleaning agents

Target Industries

agricultural machinery
automotive industry
business machines
construction industry
food engineering
food processing
conveyor technology
heavy duty industry
textile industry

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Modulus of elasticity (tensile test)		350,000	psi	ASTM D 638	1) (1) Extruded data thickness > 0.25"
Tensile strength at yield	@ 73 °F	11,000	psi	ASTM D 638	(2) Extruded data thickness > 0.25"
Elongation at break	@ 73 °F	120	%	ASTM D 638	(3) Extruded data thickness > 0.25"
Flexural strength	@ 73 °F	16,500	psi	ASTM D 790	(4) Extruded data thickness > 0.25"
Modulus of elasticity (flexural test)	@ 73 °F	440,000	psi	ASTM D 790	(5) Data obtained from public source
Compression strength	@ 73 °F, 1% strain	1,500	psi	ASTM D 695	(6) Extruded data thickness > 0.25"
Compression modulus	@ 73 °F	392,000	psi	ASTM D 695	(7) Extruded data thickness > 0.25"
Impact strength (Izod)	@ 73 °F	1.2	ft-lbs/in	ASTM D 256	(8) Publicly sourced data
Rockwell hardness	@ 73 °F M Scale	85		ASTM D 785	(9) Publicly sourced data
Coefficient of friction	Dynamic 40 psi, 50 fpm	0.26	%	ASTM D 3702	
Wear rate	40 psi, 50 fpm	200*10 ⁻¹⁰	in ³ -min/ft-lbs-hr	ASTM D 3702	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Melting temperature		491	°F	ASTM D 2133	1) (1) publicly sourced data
Deflection temperature	@264 psi	194	°F	ASTM D 648	(2) publicly sourced data
Deflection temperature	@ 66 psi	450	°F	ASTM D 648	(3) publicly sourced data
Service temperature	short term	300	°F	-	(4) publicly sourced data
Service temperature	Long Term Short Term	185	°F	-	(5) publicly sourced data (6) publicly sourced data
Thermal expansion (CLTE)		4.5*10 ⁻⁵	in/in/°F	ASTM D 696	6)
Specific heat		0.4	BTU/lb-F°	-	
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Volume resistivity		10 ¹⁵	Ω*cm	ASTM D 257	1) (1) publicly sourced data
Dissipation factor	@ 60 Hz, 70 °F	0.01		ASTM D 150	(2) publicly sourced data
Dielectric constant	@ 60 Hz, 70 °F, 50% RH	4		ASTM D 150	(3) publicly sourced data
Dielectric constant	@ 1 MHz	3.6		ASTM D 150	(4) publicly sourced data
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Water absorption	@ 24 hrs, 73 °F	0.45	%	ASTM D 570	
Moisture absorption	@ saturation, 73 °F	8.5	%	ASTM D 570	1) (1) publicly sourced data
Flammability (UL94)		HB		-	(2) 3 mm sample injection molded

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