

Ultramid® A3EG3

PA66-GF15

BASF

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.0055	mm/mm	ASTM D 955
Density, 73°F	1240	kg/m³	ASTM D 792
Water Absorption, Equilibrium	7	%	ASTM D 570
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	70 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	6000 / 4500	MPa	ISO 527
Yield stress	130 / 85	MPa	ISO 527
Nominal strain at break	3 / 10	%	ISO 527
Tensile Creep Modulus, 1000h	* / 2500	MPa	ISO 899-1
Impact Strength (Charpy), +23°C	45 / 70	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	43 / -	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	8 / 11	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	7 / -	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	5500 / 4000	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	5.5 / 6.5	kJ/m²	ISO 180/1A
Ball Indentation Hardness	200 / 150	MPa	ISO 2039-1
ASTM Data			
Tensile Strength at Break	114 / -	MPa	ASTM D 638
Elongation at Break	3 / -	%	ASTM D 638
Flexural Modulus	5170 / -	MPa	ASTM D 790
Notched Impact Strength (Izod), 1/8 in	59 / -	J/m	ASTM D 256
Notched Impact Strength (Izod), Low-Temperature	53 / -	J/m	ASTM D 256
Temperature	-40	°C	-
Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	250 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	250 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	32 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	75 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.6 / *	mm	-
ASTM Data			
DTUL @ 66 psi	250	°C	ASTM D 648
DTUL @ 264 psi	250	°C	ASTM D 648
Melting Temperature	260	°C	ASTM D 3418
Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.5 / 5.5	-	IEC 62631-2-1
Dissipation Factor, 1MHz	140 / 1600	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E10	Ohm	IEC 62631-3-2
Comparative tracking index	550 / -	-	IEC 60112
ASTM Data			
Volume Resistivity	1E13 / -	Ohm*cm	ASTM D 257
Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	7 / *	%	Sim. to ISO 62

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Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1230 / -	kg/m³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	145 / *	cm³/g	ISO 307, 1157, 1628

Characteristics

Processing

Injection Molding, Other Extrusion

Applications

Automotive, Electrical and Electronical

Delivery form

Pellets, Natural Color