

Ultramid® A3R
PA66

BASF

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	75 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2700 / 1000	MPa	ISO 527
Yield stress	70 / 45	MPa	ISO 527
Yield strain	5 / 20	%	ISO 527
Nominal strain at break	15 / 40	%	ISO 527
Impact Strength (Charpy), +23°C	40 / no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	4 / 15	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	2.5 / -	kJ/m²	ISO 179/1eA
Notched Impact Strength (Izod), 23°C	4 / 12	kJ/m²	ISO 180/1A
Notched Impact Strength (Izod)	3 / -	kJ/m²	ISO 180/1A
Temperature	-30	°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)	60 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	200 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	85 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.6 / *	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.3 / 5	-	IEC 62631-2-1
Dissipation Factor, 1MHz	150 / -	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	9.5 / *	%	Sim. to ISO 62
Humidity absorption	2.5 / *	%	Sim. to ISO 62
Density	1100 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	150 / *	cm³/g	ISO 307, 1157, 1628

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	280 - 300	°C	-
Mold temperature	60 - 80	°C	-

Characteristics

Processing
Injection Molding

Features
Tribologic Grade

Delivery form
Pellets

Applications
Automotive

Disclaimer