

Ultramid® A3WG10 CR bk564
PA66-GF50

BASF

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	10 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	16400 / 11500	MPa	ISO 527
Stress at Break	230 / 160	MPa	ISO 527
Strain at Break	2.5 / 4.1	%	ISO 527
Impact Strength (Charpy), +23°C	90 / 93	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	80 / 85	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	14 / 18	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	12 / 14	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	15500 / 11300	MPa	ISO 178
Flexural Modulus	370 / 260	MPa	ISO 178

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)	255 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	260 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	16 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	80 / *	E-6/K	ISO 11359-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.7 / 10.3	-	IEC 62631-2-1
Relative permittivity, 1MHz	4.3 / 4.9	-	IEC 62631-2-1
Dissipation Factor, 100Hz	140 / 2230	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	180 / 730	E-4	IEC 62631-2-1
Volume Resistivity	4E12 / 2E9	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 2E16	Ohm	IEC 62631-3-2
Electric Strength	33 / 30	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	4 / *	%	Sim. to ISO 62
Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	300	°C	ISO 294
Injection Molding, mold temperature	100	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	280 - 310	°C	-
Mold temperature	80 - 100	°C	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Melt temperature	280 - 310	°C	-

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Characteristics

Processing

Injection Molding, Other Extrusion

Features

Thermal Stability

Delivery form

Pellets, Black