

Ultramid® Exp. F3S Balance
PA66

BASF

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	132 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.9 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.3 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	1400 / 480	MPa	ISO 527
Yield stress	43 / 26	MPa	ISO 527
Yield strain	4.2 / 24	%	ISO 527
Nominal strain at break	326 / 335	%	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	5.6 / 160	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	6.1 / 6.8	kJ/m²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	198 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	40 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	46 / *	°C	ISO 75-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1060 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	154 / *	cm³/g	ISO 307, 1157, 1628

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Haze	1.3 ^[1]	%	ASTM D 1003
Light Transmittance	92.9 ^[2]	%	ASTM D 1003
2: d = 1 mm			

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	220 - 250	°C	-
Mold temperature	20 - 40	°C	-

Characteristics

Processing

Injection Molding

Features

Good Adhesion

Delivery form

Pellets

Chemical Resistance

General Chemical Resistance

Special Characteristics

Transparent

Applications

Sports Equipment