

Technical Data Sheet

Vitamide 66 AS10 BLK 6714

Polyamide 66

Product Description

Medium viscosity Polyamide 66

Processing Method Injection Molding

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density	1.13	g/cm ³	ISO 1183
Viscosity Number, (96% H ₂ SO ₄ (Sulphuric Acid))	145	cm ³ /g	ISO 307
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min) - Conditioned	60.0	MPa	ISO 527-2
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	30	%	ISO 527-2
(50 mm/min, Type 1A)	4.0	%	ISO 527-2
Flexural Modulus	3100	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min) - Conditioned	18	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 50 mm/min)	85.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	50.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	3400	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	1700	MPa	ISO 527-1
Flexural Stress			
(2.0 mm/min, 3.5%)	100	MPa	ISO 178
(2.0 mm/min, 6.5%)	130	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	5.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	4.0	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	12	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	90	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	70	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Notched Izod Impact Strength	5	kJ/m ²	ISO 180
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	240	°C	ISO 306
(A (10N), 50 °C/h)	>250	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa)	220	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa)	77	°C	ISO 75-2/A
DSC Melting Point	260	°C	ISO 3146
Electrical			
Dielectric Strength	28	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI), (Solution A)	600	V	IEC 60112
Surface Resistivity	1E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	0.0	mm/min	ISO 3795
(2.00 mm)	0.0	mm/min	FMVSS 302
Oxygen Index	27	%	ISO 4589-2
Additional Information			
Water Absorption 23C/50RH	1.5	%	ISO 62
UL Information			
Flame Rating	V-2		UL 94

Injection Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Drying Temperature	80	°C
Processing (Melt) Temp	270 to 290	°C
Mold Temperature	60 to 100	°C