



## PA6 E FG 175x1000 mm natural

Article No.	P1001240
Category	PA

### Technical Properties

#### Density & Weight

Property	Value	Unit	Test standard
Density	1.14	g/cm <sup>3</sup>	ISO 1183
Density	1.13	g/cm <sup>3</sup>	ISO 1183

#### Moisture Absorption

Property	Value	Unit	Test standard
Water absorption to saturation	2.5	%	ISO 62
Water absorption to saturation	9.5	%	ISO 62
Water Absorption to Saturation	9	%	ISO 62
Water Absorption to Saturation	9.5	%	ISO 62

#### Tensile Properties

Property	Value	Unit	Test standard
Tensile Strength	70	MPa	DIN EN ISO 527
Tensile Strength	83	MPa	ISO 527
Modulus of elasticity (tensile)	3250	MPa	ISO 527-2
Modulus of elasticity (tensile)	3330	MPa	ISO 527
Breakdown Voltage	75	MPa	ISO 527-2
Breakdown Voltage	54	MPa	ISO 527
Break Elongation	40	%	ISO 527-2
Break Elongation	50	%	ISO 527

## Flexural Properties

Property	Value	Unit	Test standard
Flexural Strength	76	MPa	ISO 527-2
Flexural Strength	100	MPa	ISO 178

## Impact Resistance

Property	Value	Unit	Test standard
Notched impact strength (Charpy)	5.5	kJ/m <sup>2</sup>	ISO 179/1eA
Notched impact strength (Charpy)	7	kJ/m <sup>2</sup>	ISO 179

## Hardness

Property	Value	Unit	Test standard
Hardness Shore D	82	° Shore D	DIN EN ISO 868
Hardness Shore D	80	° Shore D	ISO 868
Ball pressure hardness	150	MPa	ISO 2039-1
Ball pressure hardness	155	MPa	ISO 2039

## Temperature Limits

Property	Value	Unit	Test standard
Melting point	220	°C	ISO 3146
Melting point	220	°C	ISO 3146
Maximal operating temperature (short-term)	160	°C	
Maximal operating temperature (short-term)	130	°C	UL746B
Maximum Operating Temperature	90.5	°C	
Maximum Operating Temperature	85	°C	
Minimum temperature	-36	°C	
Minimum temperature	-40	°C	
Heat deflection temperature (HDT/A)	70	°C	ISO 75-2
Heat deflection temperature (HDT/A)	75	°C	ISO 75-2
Heat deflection temperature (HDT/B)	140	°C	ISO 75-2
Heat deflection temperature (HDT/B)	190	°C	ISO 75-2
Vicat softening temperature (VST/B/50)	190	°C	ISO 306

## Thermal Conductivity

Property	Value	Unit	Test standard
Thermal Conductivity	0.32	W/(m·K)	DIN 52612
Thermal Conductivity	0.28	W/(m·K)	DIN 52612

### Thermal Expansion

Property	Value	Unit	Test standard
Thermal Expansion Coefficient	1.1	10 <sup>-4</sup> /K	ISO 11359
Thermal Expansion Coefficient	0.9	10 <sup>-4</sup> /K	ISO 11359

### Insulation Properties

Property	Value	Unit	Test standard
Dielectric Strength	30	kV/mm	IEC 60243-1
Dielectric Strength	25	kV/mm	IEC 60243-1
Volume Resistivity	10 <sup>13</sup>	Ω·cm	IEC 60093
Volume Resistivity	10 <sup>12</sup>	Ω·cm	IEC 60093
Dielectric Constant (1 MHz)	3.8	-	IEC 60250
Dielectric Constant (1 MHz)	3.7	-	IEC 60250
Dielectric loss factor (1 MHz)	0.03	-	IEC 60250
Dielectric Constant (100 Hz)	3.9	-	IEC 60250
Dielectric loss factor (1 MHz)	0.0	-	IEC 60250
Dielectric loss factor (100 Hz)	0.0	-	IEC 60250

### Static spread

Property	Value	Unit	Test standard
Surface Resistivity	10 <sup>13</sup>	Ω	IEC 60093
Comparative Tracking Index (CTI)	600	V	IEC 60112
Surface Resistivity	10 <sup>13</sup>	Ω	IEC 60093
Comparative Tracking Index (CTI)	600	V	IEC 60112

### Fire Classification

Property	Value	Unit	Test standard
Flammability Classification (UL 94)	3		UL 94