INEOS STYROLUTION

TERBLEND N NM-11

Acrylonitrile Butadiene Styrene / Polyamide (ABS/PA)

TECHNICAL DATASHEET

DESCRIPTION

The product line Terblend® N, comprising blends of ABS with PA 6, provides very good mechanical properties, a high melt flow, and very good chemical resistance provided by the polyamide component. Parts from Terblend® have acoustic dampening properties and show in unpainted, textured surfaces a nice matt appearance. Terblend® N NM-11 provides balanced properties and keeps its high impact properties also in combination with a very high concentration of colorants. Its rather low melt flow makes it also well suitable for extrusion applications.

FEATURES

- Balanced properties
- Chemical resistance
- Well extrudable
- High surface quality
- Impact strength

APPLICATIONS

- Shaving systems
- Bicycle/ E-bicycle parts
- Helmets
- Extruded sheets & profiles

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 240 °C/10 kg	ISO 1133	cm³/10 min	30
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	65
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	15
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	65
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	15
Tensile Modulus	ISO 527	MPa	2000
Tensile Stress at Yield, 23 °C	ISO 527	MPa	43
Tensile Strain at Yield, 23 °C	ISO 527	%	3.5
Tensile Stress at Break, 23 °C	ISO 527	MPa	31.00
Tensile Strain at Break, 23 °C	ISO 527	%	> 50
Nominal Strain at Break, 23 °C	ISO 527	%	> 50
Tensile Modulus after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	MPa	1400
Tensile Stress at Yield after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	MPa	34
Tensile Strain at Yield after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	%	5.5

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Property, Test Condition	Standard	Unit	Values
Nominal Strain at Break after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	%	> 50
Flexural Modulus, 23 °C	ISO 178	MPa	1800
Flexural Strength, 23 °C	ISO 178	MPa	62
Hardness, Ball Indentation	ISO 2039-1	MPa	86
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	102
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	85
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	97
Coefficient of Linear Thermal Expansion	ISO 11359	10^{-6}/°C	100
Other Properties			
Density	ISO 1183	kg/m³	1070
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Glow wire test (GWFI), 2.0 mm	IEC 60695-2-12	°C	650
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	1.2
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.7 - 0.9
Melt Temperature Range	ISO 294	°C	240 - 270
Mold Temperature Range	ISO 294	°C	60 - 80
Drying Temperature	-	°C	80 - 90
Drying Time	-	h	4 - 8