

# Terblend S NM-31

Acrylonitrile Styrene Acrylate / Polyamide (ASA/PA)

## TECHNICAL DATASHEET

### DESCRIPTION

The product line Terblend® S, comprising blends of ASA with PA 6, provides very good mechanical properties, a high melt flow, and an excellent chemical resistance. The ASA component assures a high UV resistance for all kind of interior applications – incl. unpainted surfaces in light colors – but also for exterior parts with medium weatherability requirements. Parts from Terblend® have acoustic dampening properties and show in unpainted, textured surfaces a nice matt appearance. Terblend® S NM-31 provides a very high melt flow and similar mechanical properties as Terblend® N NM-21EF. It is a low emission grade that can be used e.g. as drop-in solution for unpainted, automotive interior applications in light colours.

### FEATURES

- Chemical resistance
- High flowability
- High surface quality
- Impact strength
- Colour fastness

### APPLICATIONS

- Unpainted automotive interior: loudspeaker grills, air ventings
- Bicycle/ E-bicycle parts
- Gardening tools
- Toys, sports & leisure

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Volume Rate, 240 °C/10 kg	ISO 1133	cm <sup>3</sup> /10 min	60
<b>Mechanical Properties</b>			
Charpy Notched Impact Strength, 23 °C	ISO 179/1eA	kJ/m <sup>2</sup>	70
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m <sup>2</sup>	9
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m <sup>2</sup>	65
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m <sup>2</sup>	8
Tensile Modulus	ISO 527	MPa	2100
Tensile Stress at Yield, 23 °C	ISO 527	MPa	50
Tensile Strain at Yield, 23 °C	ISO 527	%	3.3
Tensile Stress at Break, 23 °C	ISO 527	MPa	33
Tensile Strain at Break, 23 °C	ISO 527	%	50
Nominal Strain at Break, 23 °C	ISO 527	%	25
Tensile Modulus after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	MPa	1300
Tensile Stress at Yield after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	MPa	35

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Property, Test Condition	Standard	Unit	Values
Tensile Strain at Yield after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	%	7
Nominal Strain at Break after Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 527	%	> 50
Flexural Modulus, 23 °C	ISO 178	MPa	2000
Flexural Strength, 23 °C	ISO 178	MPa	65
Hardness, Ball Indentation	ISO 2039-1	MPa	99
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	110
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	87
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	97
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	100
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	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	%	1.5
<b>Processing</b>			
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
Linear Mold Shrinkage	ISO 294-4	%	0.7 - 0.9