



Terblend® N NM-11 (ABS+PA)



PRODUCT DESCRIPTION

Terblend N NM-11 is an ABS/PA blend combining very high impact strength, even at low temperatures, with an excellent processability and surface appearance.

PHYSICAL FORM AND STORAGE

Terblend® N is supplied as cylindrical or lenticular pellets. The bulk density is from about 0.55-0.65 g/cm³.

Standard pack: 25 kg PE sack, palletized and film-secured. Subject to agreement, other means of packing are possible, e.g. 1000 kg bulk containers (octagonal IBCs, or intermediate bulk containers, made from corrugated board with sack insert) or shipping by road tanker can be arranged. Terblend® N pellets can be stored for prolonged periods in dry areas subject to normal temperature control without any changes in mechanical properties. However, with sensitive colors storage over some years can cause some color change. In poor storage conditions, Terblend® N absorbs moisture, which can be removed again by drying. Packs stored in cold areas should be brought to ambient temperature before opening to prevent condensation on the pellets.

PRODUCT SAFETY

Given appropriate processing of the products and suitable ventilation measures in production areas, no adverse effects on the health of process operator have been found. Workplace limits for styrene, alpha-methylstyrene and acrylonitrile and 1,3-butadiene, as given in the national listings applicable, must be adhered to.

The values currently applicable in Germany under TRGS 900 (issue of September, 1999) for maximum workplace concentrations are as follows. Styrene: 20 ml/m³ = 85 mg/m³; alpha-methylstyrene: 100 ml/m³ = 480 mg/m³; acrylonitrile: 3 ml/m³ = 7 mg/m³; 1,3-butadiene: 5 ml/m³ = 11 mg/m³. Appendix I of Directive 67/548/EWG (issue of 1999) classifies acrylonitrile and 1,3-butadiene in carcinogenic category II (substances which should be regarded as carcinogenic in humans).

Experience has shown that during appropriate processing of Terblend N with suitable ventilation the values obtained are well below the limits mentioned above. TRGS 402 (Germany) can be used for determining and assessing the concentrations of hazardous substances in the air within working areas.

Inhalation of gaseous degradation products (e.g. caprolactam), such as those which may arise on severe overheating of the material or during pumped evacuation, must be avoided. Further information can be found in our Terblend N safety data sheets. These can be requested from the Styrenics Infopoint by phoning +49 621 60-4 14 46, fax: +49 621 60-4 60 06, or by e-mail: styrenics.infopoint@basf-ag.de.

NOTE

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

In order to check the availability of products please contact us or our sales agency.



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Typical values at 23°C 1)	Test method 2)	Unit	Values 3)
PROPERTIES			
Polymer abbreviation	-	-	(ABS+PA)
Density	ISO 1183	kg/m ³	1070
Moisture absorption, equilibrium 23°C/50%r.h.	similar to ISO 62	%	1.4
PROCESSING			
Melt mass-flow rate MVR	ISO 1133	cm ³ /10min	30
Temperature	ISO 1133	°C	240
Load	ISO 1133	kg	10
Method: Injection moulding (M), Extrusion (E)	-	-	M. E
Melt temperature, injection moulding	-	°C	240 - 280
Mould temperature, injection moulding	-	°C	40 - 80
FLAMMABILITY			
UL rating at 1.6 mm thickness	UL 94	Class	HB
MECHANICAL PROPERTIES dry / cond.			
Tensile modulus	ISO 527-1/-2	MPa	2000 / 1600
Yield stress, 50 mm/min	ISO 527-1/-2	MPa	43 / 34
Yield strain, 50 mm/min	ISO 527-1/-2	%	3.5 / 5.5
Nominal strain at break, 50 mm/min	ISO 527-1/-2	%	>50 / >50
Flexural modulus	ISO 178	MPa	1800 / -
Flexural strength	ISO 178	MPa	62 / -
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m ²	N/-
Charpy unnotched impact strength (-30°C)	ISO 179/1eU	kJ/m ²	N/-
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m ²	65 / -
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m ²	15 / -
Izod notched impact strength (23°C)	ISO 180/1A	kJ/m ²	65 / -
Izod notched impact strength (-30°C)	ISO 180/1A	kJ/m ²	15 / -
Rockwell hardness	ISO 2039-2	class	R103
Ball indentation hardness	ISO 2039-1	MPa	86 / 70
Force	ISO 2039-1	N	358 / 358
Duration	ISO 2039-1	s	30 / 30
THERMAL PROPERTIES			
HDT A (1.80 MPa)	ISO 75-1/-2	°C	65
HDT B (0.45 MPa)	ISO 75-1/-2	°C	85
Vicat softening temperature VST/A/50	ISO 306	°C	160
Vicat softening temperature VST/B/50	ISO 306	°C	102
Coefficient of linear thermal expansion, longitudinal (23-80)°C	ISO 11359-1/-2	E-4/°C	1
ELECTRICAL PROPERTIES			
Relative permittivity (1 MHz)	IEC 60250	-	2.9 / 3.3
Dissipation factor (1 MHz)	IEC 60250	E-4	150 / 550
Volume resistivity	IEC 60093	Ohm*m	>1E13 /
Surface resistivity	IEC 60093	Ohm	1E11 / 1E14

Footnotes

- 1) If the product definition doesn't state otherwise.
- 2) Specimens according to CAMPUS.
- 3) The asterisk '*' signifies inapplicable properties.