Luran® 358 N

SAN

PRODUCT DESCRIPTION

Easy-flow grade, suitable for mouldings with very thin walls and / or adverse flow length to wall ratio.

PHYSICAL FORM AND STORAGE

Luran® is supplied as cylindrical or lenticular pellets. The bulk density is approx. 0.55-0.65 g/cm³, by glass – reinforced grade (Luran® 378 P G7) the bulk density is approx. 0,68 - 0,82 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 (flexible IBCs or intermediate bulk big bag containers); shipping by road tanker can be arranged. Luran® pellets can be stored for prolonged periods in dry areas subject to normal temperature control without any changes in mechanical properties. However, for sensitive colors storage over some years can cause some color change. And poor storage conditions, Luran 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 operators have been found. Workplace limits for styrene, alpha-methylstyrene and acrylonitrile, as given in the national listings applicable, must be adhered to.
The values currently applicable in Germany under TRGS 900 (issue of October, 2002) for maximum workplace concentrations are as follows. Styrene: 20 ml/m³ = 86 mg/m³; alpha-methylstyrene: 100 ml/m³ = 480 mg/m³; acrylonitrile: 3 ml/m³ = 7 mg/m³. Appendix I of Directive 67/548/EWG and TRGS 905 (issue of October,2002) classify acrylonitrile in carcinogenic category II (substances which should be regarded as carcinogenic in humans).
Experience has shown that during appropriate processing of Luran 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, 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 Luran safety data sheets. These can be requested from the Styrenics Infopoint, phone +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.

BASF Aktiengesellschaft
67056 Ludwigshafen, Germany

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BASF
The Chemical Company

Typical values 1) at 23℃	Test method 2)	Unit	Values
PROPERTIES			
Polymer abbreviation	-	-	SAN
Density	ISO 1183	kg/m³	1080
Reinforcing filler content: Glass fibres (GF)	-	%	-
Moisture absorption, equilibrium 23°C/50% r.h.	similar to ISO 62	%	0.2
PROCESSING			
Method: Injection moulding (M), Extrusion (E)	-	-	M
Melt volume-flow rate MVR	ISO 1133	cm³/10min	22
Temperature	ISO 1133	°C	220
Load	ISO 1133	kg	10
Melt volume-flow rate	ISO 1133	cm³/10min	27
Temperature	ISO 1133	°C	200
Load	ISO 1133	kg	21.6
Pre-drying: Temperature	-	°C	80
Pre-drying: Time	-	h	2-4
Melt temperature, injection moulding	-	°C	200 - 250
Mould temperture, injection moulding	-	°C	40 - 80
Moulding shrinkage, free, longitudinal	-	%	0.3 - 0.7
FLAMMABILITY			
UL94 rating at 1.6 mm thickness	UL 94	class	HB
UL94 rating at 0.8 mm thickness	UL 94	class	HB
MECHANICAL PROPERTIES			
Tensile modulus	ISO 527-1/-2	MPa	3700
Stress at break	ISO 527-1/-2	MPa	72
Strain at break	ISO 527-1/-2	%	3
Flexural strength	ISO 178	MPa	120
Tensile creep modulus, 1000 h, strain <= 0.5%, 23°C	ISO 899-1	MPa	2800
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m²	16
Izod notched impact strength, 1A (23°C)	ISO 180/1A	kJ/m²	2
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m²	2
Ball indentation hardness	ISO 2039-1	MPa	165
Force	ISO 2039-1	N	358
Duration	ISO 2039-1	s	30
Rockwell hardness	ISO 2039-2	class	M83
THERMAL PROPERTIES			
HDT A (1.80 MPa), measured using dried specimens	ISO 75-1/-2	°C	98
HDT B (0.45 MPa), measured using dried specimens	ISO 75-1/-2	°C	102
Vicat softeneing temperature VST B50	ISO 306	°C	106
Max. service temperature (short cycle operation)	-	°C	85
Coefficient of linear thermal expansion, longitudinal (23-80)°C	ISO 11359-1/-2	E-4/°C	0.7
thermal conductivity	DIN 52612-1	W/(m K)	0.17
ELECTRICAL PROPERTIES			
Relative permittivity (100Hz)	IEC 60250	-	3
Relative permittivity (1 MHz)	IEC 60250	-	2.7
Dissipation factor (100 Hz)	IEC 60250	E-4	40
Dissipation factor (1 MHz)	IEC 60250	E-4	70
Volume resistivity 100 V	IEC 60093	Ohm*m	1E14
Surface resistivity 100 V	IEC 60093	Ohm	>1E15
Electric strength K20/P50, d = 1 mm	IEC 60243-1	kV/mm	34

Footnotes
1) If the product definition doesn't state otherwise.
2) Specimens according to CAMPUS.

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