General Productinformation **ELASTOLLAN®** L 1185 A 10 000



® = registered trademark of BASF Polyurethanes GmbH

Characteristic:

High transparency, aliphatic polyether polyurethane with outstanding hydrolysis resistance, low temperature flexibility and good resistance to micro-organisms.

Property	Unit	Value	Test method according to
Density	g/cm³	1.08	DIN EN ISO 1183-1-A
Tensile strength	MPa	50	DIN 53504-S2
Elongation at break	%	430	DIN 53504-S2
Stress at 100% elongation	MPa	5	DIN 53504-S2
HAZE A	%	<0,5	ASTM D 1003

Test specimens were punched from 2mm or 6mm thick test plates. The test plates are aged 48 hours at 60° C. Test conditions: 23° C $\pm 2^{\circ}$ C and $50\% \pm 6\%$ rel. humidity.

These are general guidance data. No statement regarding specific properties. All supplies are subject to detailed specifications to be agreed-up in each individual case and containing, among others, the tolerances to be specified therein.

Delivery form and packing:

Pellets; the packaging dependent upon grade and agreement.

Drvina:

Elastollan® L 1185 A 10 000 is hygroscopic.

Elastollan® L 1185 A 10 000 must be dried before processing for 4 hours at 60°C in a dehumified air dryer.

Additives have to be dried with the granules.

Material is strongly blocked and should be kept in motion during drying.

Version: 4

Printed on: 06/08/2025 Page 1/4

Injection moulding:

When injecting the melt should be bubble and foam free, if not we recommend to adjust the drying temperature accordingly.

Following temperatures are guide values, showing the tendency of temperature profile. These may vary

depending on kind of machine and mould design.

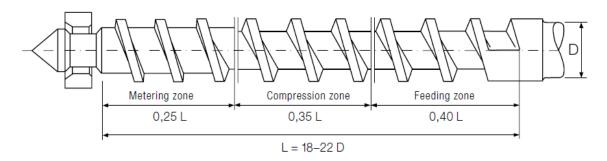
Feeding [°C]	Zone1 [°C]	Zone2 [°C]	Zone3 [°C]	Zone4 [°C]	Die [°C]	Melt-temp [°C]	Mould- temp. [°C]
30-40	160-180	170-190	180-200	180-200	190-210	180-200	20-60

General Recommendations:

Circumferential speed (screw speed)	< 0,2 m/s 12 m/min					
Specific back pressure		50-150 bar				
Injection speed		rel. low				
Retention time of melt (including hot-runner)		< 10 min				
Carrayyaraad	d _{screw} [mm]	30	45	50	60	
Screw speed	n _{max} [min ⁻¹]	135	85	70	60	

Machine Design:

The injection moulding machines with single-flighted, 3-zone scews are suitable for the processing of Elastollan® L 1185 A 10 000. Short compression-zone scews are not suitable. The compression ratio should be around 1:2 and should not exceed 1:3. A check ring (shut-off ring) should be incorporated.



Version: 4

Printed on: 06/08/2025 Page 2/4

Extrusion:

Following temperatures are guide values, showing the tendency of temperature profile. These may vary depending on kind of machine and mould design.

Feeding	Zone1	Zone2	Zone3	Zone4	Adaptor	Gead	Die
[°C]	[°C]						
cooled*	170-190	170-190	160-180	160-180	160-180	150-170	

^{*}in case of using a grooved feeding zone

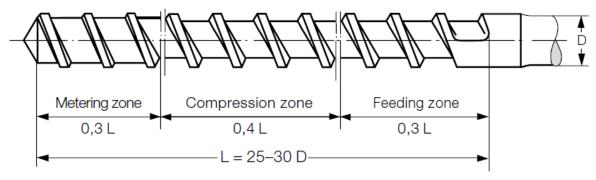
General Recommendations: circumferential speed 0,15m/s max.

Saraw anaad	d _{screw} [mm]	30	45	50	60
Screw speed	n _{max} [min ⁻¹]	80	60	50	45

For start-up use screw-speed of about 0,05m/s and starve feeding in order to control screw torque and engine power consumption.

Machine Design:

Single screw extruder with a compression ratio of 1:2 to 1:3, preferably 1:2,5, are recommended for processing Elastollan® L 1185 A 10 000. BASF experience shows that three section screws with L/D ratio of 25 to 30 are most suitable. Three-section screws should have continued constant pitch of 1D. The radial clearance between screw and barrel shoul be 0,1 to 0,2mm. For processing Elastollan® L 1185 A 10 000, multizone screws, e.g. barrier screws, have also proven suitable. Short screws with high compression ratio are unsuitable for Elastollan®.



Storage and Processing:

In cool and dry storage conditions and in the original, undamaged and sealed containers, the products are processable for at least 6 months from delivery date. Thereafter, we do not give any warranty or guarantee regarding the processability of the products. Warranties regarding buyer's rights in case of defects remain unaffected hereby.

Storage:

Elastollan® L 1185 A 10 000 is hygroscopic, therefore storage in dry conditions and original container is recommended.

Hazard indication:

No particular hazards known. Please have a look at the Material Safety Data Sheet before handling.

Waste Disposal:

More detailed information is provided in our country-specific pamphlet and the Material Safety Data Sheet.

3 D Printing Applications and hazards:

3 D printing is becoming a popular method for rapid prototyping. Please note that 3-D-printers apply various process mechanisms and it is possible that hazardous vapors and gases might be emitted during the printing process depending on the respective processing conditions. Furthermore, it might be possible that in the process of 3-D-printing, hazardous materials in respect of dermal contacts are used or created. Based on this, we strongly advise against using our product in private 3-D-printing processes. However, as the processes are manifold and not under our control, we regret that BASF Polyurethanes GmbH cannot recommend or give a more detailed indication as to concrete measures to assure a safe handling of our products in 3-D-printing processes. This lies entirely in the responsibility of the respective customers when using or selling our product for 3-D-printing applications.

Version: 4

Printed on: 06/08/2025 Page 3/4

Important Information:

The data contained in this document as well as advice or other support services are based on our current knowledge and experience and are provided according to our best knowledge. In view of many factors that may affect processing and application of our products, this data does not relieve processors from carrying out their own investigations and tests, particularly with regards to the suitability of the goods supplied for the processes and purposes they intend to use them for; neither does this data imply any guarantee of certain properties, or the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, measured values etc. given herein may change without prior notice 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.

Please notice that this product is not intended for food contact applications.

To determine the suitability of this BASF Polyurethanes GmbH product for certain applications a thorough evaluation by the processor(s), manufacturer(s) and/or distributor(s) is required. National and international laws and regulations have to be considered producing medical devices or consumer articles including but not limited to articles with skin contact or toys.

Where specific regional regulations do not exist, the current legal EU and US requirements as well as globally accepted standards for consumer articles and medical devices should be used as reference.

Please contact BASF Polyurethanes GmbH Sales Office and our Ecology and Product Safety department in case of further questions.

For additional information please contact our Sales Office:

BASF Polyurethanes GmbH

Elastogranstraße 60 49448 Lemförde Telefon +49 (0) 5443/12-3456 Fax +49 (0) 5443/12-2555 E-Mail <u>elastollan-infopoint@basf.com</u>

www.elastollan.com

Version: 4

Printed on: 06/08/2025 Page 4/4