

# Elastollan® 688A10N

## Technical Bulletin

## Polyester Type

Elastollan® 688A10N is part of a new series of film grade polyester-based thermoplastic polyurethanes (TPU). These products are formulated for high transparency, low gel, relative ease of processing, and low yellowness index. As such, Elastollan® 688A10N is specifically targeted for film and sheet applications, extruded profiles, blow molded parts, or other high end applications in extrusion. It exhibits excellent abrasion resistance, toughness and transparency. With respect to processing it is generally easy to process and has a very wide processing window; in some cases as high as 25 to 30°F. Along with these attributes, it also conforms to FDA food contact as described in book 21, section 177.2600 and 177.1680, for both wet and dry food contact applications respectively. As with all TPU products, Elastollan® 688A10N must be dried before processing. The water content must be less than 0.03% before and during processing. The typical drying conditions should be 2-4 hours @ 175°-195°F (80°-90°C). Elastollan® 688A10N can be stored for up to 1 year in its original container. Containers should be stored in a cool and dry area.

Properties	Test Method	Typical Value		
		English	SI	
<b>Physical</b>				
Specific Gravity	gr./cm <sup>3</sup>	ASTM D-792	1.21	1.21
Hardness	Shore A/D	ASTM D-2240	88A	88A
MFI	190°C/21,6 kg	ASTM D-1238	30	30
<b>Mechanical</b>				
Tensile Strength (Ultimate)	psi / MPa	ASTM D-412	4535 psi	31 MPa
Tensile Stress	@100% Elong.	ASTM D-412	1165psi	6.3 MPa
Tensile Stress	@300% Elong.	ASTM D-412	2800 psi	12.8 MPa
Elongation at Break	%	ASTM D-412	600%	650%
Compression Set, %	22 hrs @ 23°C	ASTM D-395 (B)	25%	25%
Compression Set, %	22 hrs @ 70°C	ASTM D-395 (B)	45%	45%
E-Modulus	psi / MPa	ASTM D-412	2650 psi	16 MPa
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	610b./in.	90 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	25	25
<b>Thermal</b>				
Vicat Softening Point	°F/°C	ASTM D-1525	177 °F	80 °C
<b>Processing Conditions, Extrusion</b>			350 - 385 °F	175 - 195 °C
<b>Processing Conditions, Inj. Molding</b>			350 - 430 °F	175 - 220 °C

The above values are shown as typical values and should not be used as specifications.  
Molded plaques 0.080" thick were cured 20 hours at 100 °C before testing

**Caution:** Contact with product dusts from regrinding operations may cause temporary irritation of the eyes and the respiratory tract. Use with local exhaust. Under hot melt processing conditions (170-230°C), wear personal protective equipment to prevent thermal burns.

**First aid:** *Eyes*-Flush eyes with flowing water at least 15 minutes. If irritation develops, consult a physician. *Skin*-Skin contact with hot melt may cause thermal burns. Call a physician immediately. *Inhalation*-If vapors generated from the hot melt process are inhaled, move to fresh air. Aid in breathing. If breathing difficulties develop, see a physician immediately.

**In case of fire:** Use water fog, foam, CO<sub>2</sub>, or dry chemical extinguishing media. Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

**Disposal:** Waste material, unused contents and empty containers must be disposed of in accordance with applicable local, state or federal regulations. Refer to our Material Safety Data Sheet for specific disposal instructions.

**In case of chemical emergency:** Call CHEMTREC day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents. 800-424-9300

**Attention:** This product is sold solely for use by industrial institutions. Refer to our Material Safety Data Sheet regarding safety, usage, applications, hazards, procedures and disposal of this product. Consult your supervisor for additional information.

No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth or that the products designs, data or information may be used without infringing the intellectual property rights of others in no case shall the descriptions information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by BASF hereunder are provided gratis and BASF assumes no obligation or liability for the description, designs data and information given or results obtained, all such being given and accepted at your risk.

BASF Corporation, 1609 Biddle Avenue, Wyandotte, Michigan 48192 (800) 892-3111 x21, [www.basf.com/elastollan](http://www.basf.com/elastollan)

©BASF Corporation 2000

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

备注：以上原料物性数据由IDES发布, 我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。 我公司不承担任何法律责任！

**BASF**