

# Elastollan® 695A15N

## Technical Bulletin

## Polyester Type

Elastollan® 695A15N 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® 695A15N 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® 695A15N 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® 695A15N 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
Physical				
Specific Gravity	gr./cm <sup>3</sup>	ASTM D-792	1.23	1.23
Hardness	Shore A	ASTM D-2240	93A	93A
MFI	190°C/21,6 kg	ASTM D-1238	40	40
Mechanical				
Tensile Strength (Ultimate)	psi / MPa	ASTM D-412	5435 psi	37.5 MPa
Tensile Stress	@100% Elong.	ASTM D-412	1715 psi	11.8 MPa
Tensile Stress	@300% Elong.	ASTM D-412	3535 psi	24.4 MPa
Elongation at Break	%	ASTM D-412	510%	510%
Compression Set, %	22 hrs @ 23°C	ASTM D-395 (B)	25%	25%
Compression Set, %	22 hrs @ 70°C	ASTM D-395 (B)	40%	40%
E-Modulus	psi / MPa	ASTM D-412	3900 psi	27 MPa
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	795 lb./in.	135 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	25	25
Thermal				
Vicat Softening Point	°F/°C	ASTM D-1525	207°F	97°C
Processing Conditions, Extrusion	°F/°C		350 - 385°F	175 - 195°C
Processing Conditions, Inj. Molding	°F/°C		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.  
**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.

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