

# Elastollan<sup>®</sup> 1185A50V

## Technical Bulletin

## Polyether Type

Elastollan<sup>®</sup> 1185A50V is a polyether-based thermoplastic polyurethane (TPU) It exhibits excellent abrasion resistance, toughness, transparency, low temperature properties, hydrolytic stability and fungus resistance. Elastollan<sup>®</sup> 1185A50V is also conforming to the FDA food contact section, book 21, section 177.2600. As with all TPU products, Elastollan<sup>®</sup> 1185A50V must be dried before processing. The drying step is required maintain a low moisture content until the product enters the processing equipment. The water content must be less than 0.03% before and during processing. The typical drying conditions should be 2-4 hours @ 175<sup>o</sup>-195<sup>o</sup>F (80<sup>o</sup>-90<sup>o</sup>C). Elastollan<sup>®</sup> 1185A50V 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	1.12	1.12
Hardness	Shore A	ASTM D-2240	86A	86A
<b>Mechanical</b>				
Tensile Strength (Ultimate)	psi / MPa	ASTM D-412	5100 psi	35 MPa
Tensile Stress	@100% Elong	ASTM D-412	1100 psi	7.6 MPa
Tensile Stress	@300% Elong	ASTM D-412	1750 psi	12 MPa
Elongation at Break	%	ASTM D-412	520%	520%
Tensile Set at Break	%	ASTM D-412	70%	70%
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	3000 psi	20.7 MPa
Flexural Modulus	psi / MPa	ASTM D-790	4500 psi	31 MPa
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	540 lb./in.	95 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	30 mg	30 mg
<b>Processing Conditions, Inj. Molding</b>				
	°F/°C		385 - 400° F	195 - 205° 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.

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)

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**BASF**