

# Elastollan® 1154D13

## Technical Bulletin

## Polyether Type

Elastollan® 1154D13 is a polyether-based thermoplastic polyurethane (TPU). It exhibits excellent abrasion resistance, toughness, transparency, low temperature properties, hydrolytic stability and fungus resistance. Elastollan® 1154D13 is also conforming to the FDA food contact section, book 21, section 177.2600. As with all TPU products, Elastollan® 1154D13 must be dried before processing. The drying step is required to maintain a low moisture content until the product enters the processing equipment. The water content must be less than 0.03% before processing. The typical drying conditions should be 2-4 hours @ 195°-220° F (90°-105° C). Elastollan® 1154D13 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	1.16	1.16
Hardness	Shore D	ASTM D-2240	53D	53D
Mechanical				
Tensile Strength (Ultimate)	psi / MPa	ASTM D-412	5800 psi	40 MPa
Tensile Stress	@100% Elong.	ASTM D-412	2900 psi	20 MPa
Tensile Stress	@300% Elong.	ASTM D-412	4300 psi	29.6 MPa
Elongation at Break	%	ASTM D-412	460%	460%
Tensile Set	@ 50% Elong.	ASTM D-412	70%	70%
Compression Set, %	22 hrs @ 23°C	ASTM D-395 (B)	40%	40%
Compression Set, %	22 hrs @ 70°C	ASTM D-395 (B)	50%	50%
E-Modulus	psi / MPa	ASTM D-412	15500 psi	103.5 MPa
Flexural Modulus	psi / MPa	ASTM D-790	22500 psi	155.2 MPa
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	1025 lb./in.	179.5 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	75 mg	75 mg
Thermal				
Vicat Softening Point	°F/°C	ASTM D-1525	280°F	138°C
Processing Conditions, Extrusion	°F/°C		410 - 440°F	210 - 225°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

# BASF

