

# Elastollan® 1154D53

## Technical Bulletin

## Polyether Type

### Product Description

Elastollan® 1154D53 is a polyether-based thermoplastic polyurethane (TPU). It exhibits excellent abrasion resistance, toughness, transparency, low temperature properties, hydrolytic stability and fungus resistance. Elastollan® 1154D53 is also conforming to the FDA food contact section, book 21, section 177.2600.

### Processing/Handling

As with all TPU products, Elastollan® 1154D53 must be dried before processing. The drying step is required to both dry the granules and also 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® 1154D53 can be stored for up to 1 year in its original container. Containers should be stored in a cool and dry area.

Physical Properties	Units	ASTM Method	Typical Value
Specific Gravity	gr/cc	D-792	1.16
Hardness	Shore D	D-2240	53±2
Tensile Strength	MPa psi	D-412	40 5800
Tensile Stress @ 100%Elongation	MPa psi	D-412	20 2900
@ 300% Elongation	MPa psi		30 4300
Elongation @ Break	%	D-412	460
Tensile Set @ Break	%	D-412	70
Tear Strength	kN/m pli	D-624 DIE C	180 1025
Abrasion Resistance	mg (Loss)	D-1044 (Taber)	75

Suggested Starting Molding Temperatures	
Feed	400° F (205° C)
Compression	415° F (210° C)
Metering	430° F (220° C)
Nozzle	435° F (225° C)
Melt	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 @ 100° C before testing.

**BASF**