

Zythane® 3045DH

Alliance Polymers & Services - Thermoplastic Polyurethane Elastomer (Polycaprolactone)

General Information

Product Description

Zythane 3045DH is a polycaprolactone/HQEE--based TPU specifically formulated for injection molding applications. It exhibits excellent low compression set, abrasion resistance and toughness and has good hydrolytic stability, oil, fuel and solvent resistance. It is supplied uncolored in pellet form.

Typical Applications:

Zythane 3045DH application include high temperature hydraulic seals and other applications require good higher temp compression set.

General

Features	<ul style="list-style-type: none"> • Abrasion Resistant • Fuel Resistant • Good Toughness 	<ul style="list-style-type: none"> • Hydrolytically Stable • Low Compression Set • Oil Resistant 	<ul style="list-style-type: none"> • Solvent Resistant
Uses	<ul style="list-style-type: none"> • Seals 		
Appearance	<ul style="list-style-type: none"> • Colorless 		
Forms	<ul style="list-style-type: none"> • Pellets 		
Processing Method	<ul style="list-style-type: none"> • Injection Molding 		

Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance	41.0	mg	ASTM D1044
Abrasion - DIN	35	mm ³	DIN 53516
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	2540	psi	ASTM D412
Tensile Stress (300% Strain)	5950	psi	ASTM D412
Tensile Strength (Break)	9930	psi	ASTM D412
Tensile Elongation (Break)	480	%	ASTM D412
Tear Strength ²	717	lbf/in	ASTM D624
Compression Set			ASTM D395B
75°F, 22 hr	8.0	%	
158°F, 72 hr	18	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A	95		
Shore D	50		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-31.0	°F	DSC
Vicat Softening Temperature	311	°F	ASTM D1525
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.04 in		HB	
0.06 in		HB	
0.12 in		HB	