PELLETHANE 2102-55D

Thermoplastic Polyurethane Elastomer

Overview

- Load-bearing capacity

Applications

Physical Properties[1]	Test Method	English Units	SI Units
Hardnes	ASTM D 2240		
Shore D		58D	58D
Specific Gravity	ASTM D 792	1.21	1.21
Melt Flow Rate	ASTM D 1238		
224˚C/2160g		-- g/10 min	14 g/10 min
Taber Abrasion, Wt Loss, 1000g wt	ASTM D 1044		
1-1000g, H-22 (coarser)		-- mg	60 mg
Mold Shrinkage, Transverse direction	ASTM D 955	0.6-0.9 %	0.6-0.9 %
Mold Shrinkage, Flow direction	ASTM D 955	0.5-0.7 %	0.5-0.7 %
Mechanical Properties[2]			
Tensile Modulus	ASTM D 412		
50% elongation		2220 psi	15.3 MPa
100% elongation		2350 psi	16.2 MPa
300% elongation		5200 psi	35.8 MPa
Ultimate Elongation	ASTM D 412	415 %	415 %
Ultimate Tensile Strength	ASTM D 412	7180 psi	49.5 MPa
Elongation Set After Break	ASTM D 412	30 %	30 %
Tear Strength, Die C	ASTM D 624	1020 PLI	179 KN/m
Compression Set, Method B	ASTM D 395		
22 hrs @ 25˚C		25 %	25 %
22 hrs @ 70˚C		27 %	27 %
Flexural Modulus	ASTM D 790	25,000 psi	172 MPa
Thermal Properties			
Vicat Softening Point (120˚C/hr, 9.8N)	ASTM D 1525	245 ˚F	118 ˚C
CLTE, in-flow, -30 to -80˚C	ASTM D 696	75.0 in/in/˚F	135 mm/mm/˚C
Processing Conditions (Typical)			
Drying Temperature (air dew point <-40C)		190-220 ˚F	88-104 ˚C
Melt Temperature (Molding)		400-430 ˚F	204-221 ˚C
Mold Temperature		60-140 ˚F	16-60 ˚C

Notes

1. Typical properties; not to be construed as sales specifications. Fabrication conditions, part design, additives, processing aids, finishing materials, and use conditions can all affect the integrity, performance, and regulatory status of finished goods.
2. Tests conducted on 0.125 inch (3.2 mm) injection molded specimen, unannealed, unless noted.