Material: POLYETHYLENE HIGH DENSITY:

HIGH DENSITY POLYETHYLENE (HDPE)
DOW CHEMICAL HIGH DENSITY POLYETHYLENE PE DOW 08454N (HDPE)
Dow Chemical High Density Polyethylene PE Dow 08454N

Polyethylene is among the lowest density plastics and therefore is one of the lowest cost per cubic measure compared to other plastics. High density polyethylene has good toughness, excellent electrical properties, and chemical resistance, good low temperature brittleness and very low water absorption. Polyethylene is essentially inert, unaffected by strong and weak acids, alkalies, detergents, alcohols, and ketones. Polyethylene has low tensile strength and is subject to considerable creep and stress relaxation under load. Polyethylene will swell with chlorinated and aromatic hydrocarbons including gasoline and oils.

APPLICATIONS

Washers - Spacers - Beaded Ties - Insulators - Wire clips - Protective Caps - Plugs - Spiral Wrap - Flexible Grommeting

Approvals	FDA 21CFR 177.1520

Properties

General	**Nominal Values**	**Test Method**
Specific Gravity	0.954	ASTM D792
Melt Index, (190 C/2160gm), gm/10min	7	ASTM D1238
Melt Flow Ratio (I_{10}/I_2)	6.9	ASTM D1238
Apparent Dynamic Viscosity, p (Pa-s)		ASTM D3835
@ 230C and 300 sec^{-1}	3600	
@ 230C and 1000 sec^{-1}	2200	
@ 230C and 5000 sec^{-1}	900	

Mechanical	**Nominal Values**	**Test Method**
Tensile Strength @ Yield[(2)], psi	3000	ASTM D638
Tensile Strength @ Break[(2)], psi	2400	ASTM D638
Elongation, %	700	ASTM D638
Secant Modulus @ 2% Elongation, psi	97,000	ASTM D790
Flexural Modulus psi	146,000	ASTM D790
Notched Izod Impact @ RT, ft-lb/in	2.3	ASTM D256

Thermal	**Nominal Values**	**Test Method**
Vicat Softening Point, F	256	ASTM D1525