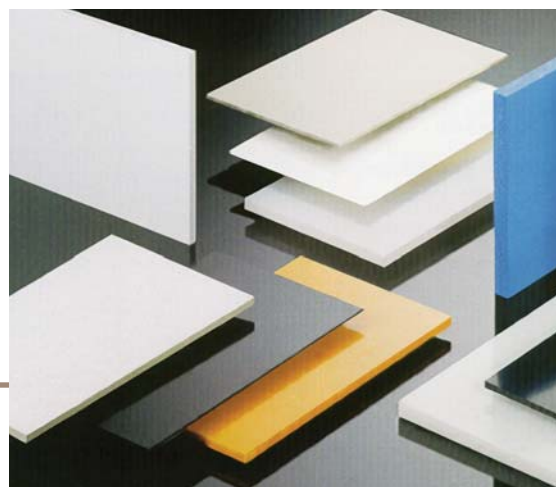


HDPE (high density polyethylene)

POLYSTONE® G



Polyethylene is a low cost, chemically resistant plastic material that can be used for a wide variety of applications. The versatility of polyethylene has made it one of the world's most popular plastics. Polyethylene is available in a number of grades according to its molecular weight.

HDPE (high density polyethylene) is available as sheet or rod stock for applications that require greater strength and stiffness than LDPE. HDPE with an embossed surface is widely used as a cutting board material in restaurants and food processing plants. HDPE is easy to weld using thermoplastic welding equipment and is an excellent choice for fabricated water tanks and chemical tanks that must be assembled by thermoplastic welding.



KEY CHARACTERISTICS:

- Easy to weld using thermoplastic welding equipment
- Low moisture absorption
- Excellent surface for food preparation
- Good chemical resistance
- Low cost
- Printable grades available
- FDA compliant grades available
- Available in a wide variety of colors

APPLICATIONS:

- Chemical tanks
- Water pipe flanges (pipe grade)
- Cutting boards for food preparation
- Orthotics and prosthetics
- Playground equipment

POLYETHYLENE TYPICAL PROPERTIES:

	UNITS	ASTM TEST	LDPE	HDPE	UHMW-PE
Tensile strength	psi	D-638	1,400	4,000	3,100
Flexural modulus	psi	D-790	30,000	200,000	110,000
Izod impact (notched)	ft-lbs/in of notch	D-256	no break	1.3	18.0*
Heat deflection temperature @66 psi	°F	D-648	122	172	-
Maximum continuous service temperature in air	°F		-	-	180
Water absorption (immersion 24 hours)	%	D-570	0.10	0.10	slight
Coefficient of linear thermal expansion	in/in/°Fx10 ⁵	D-696	-	7.0	11.1