

HI-863 High Density Polyethylene

HI-863 is a **certified prime** grade designed for **INJECTION MOLDING** of large sized industrial applications requiring high Stiffness, good Toughness and good Impact strength. **HI-863** features easy processability, excellent dimensional stability, and high Warpage resistance. **HI-863** suggested applications include bottle crates, fish crates, fruit trays, vegetable trays, cases, tote bins, and structural foam. **HI-863** recommended processing temperature is 220 to 250°C. with mold @ 20 to 40°C.. **HI-863** complies with FDA regulation 21CFR 177.1520 (c) 3.1 (a) + 3.2 (a) and with most international regulations concerning the use of Polyethylene in contact with food articles.

Typical Properties

PROPERTIES*	ASTM TEST	UNIT ENGLISH (METRIC)	NOMINAL VALUES
RESIN			
Melt Index	D 1238E	gr./10 min	8.0
Density	D 1505	gr./cm ³	0.963
MOLDED SPECIMEN*			
Tensile Strength @Yield ²	D 638	psi (MPa)	4650 (32)
Flexural Modulus ¹	D 790	psi (MPa)	225000 (1550)
Ultimate Elongation ²	D 638	%	600
Izod Impact, Notched @ 23°C	D 256	ft.lb/in. (J/m)	1.0 (54)
ESCR ³ (F50)	D 1693B	hrs.	3
Low Temp. Brittleness	D 746	°C.	<-75
Vicat Softening Point	D 1525	°C.	125
HDT @ 0.46 N/mm ²	D 648	°C.	78

TYPICAL VALUE OF PROPERTIES NOT TO BE CONSTRUED AS SPECIFICATIONS.

- * - Test specimens from compression molded plaque according to ASTM D 1928 Procedure C.
- 1 - 1% secant @ 1.3 mm/min. speed.
- 2 - @ 50 mm/min.
- 3 - 100% Igepal, notched Bent Strip, 1.75 mm thick, 50°C.

*** The reported values are typical and do not constitute a warranty but a guide for the diverse application possibilities.