



SHOBEIR SHIMI
WWW.SHOBEIRSHIMI.COM
info@shobeirshimi.com

TABRIZ PETROCHEMICAL COMPANY

HIGH-DENSITY POLYETHYLENE HDPE HD3840UA

HD3840UA is a high-density polyethylene copolymer containing butene-1 (C4) as comonomer, produced using INEOS gas-phase technology. It is designed for rotational molding applications. Features include good impact strength, easy demolding, UV stabilization, good whiteness, excellent surface finish, and food-contact approval (as stated in the producer data sheet).

Producer	Characteristic Properties	Applications	Additive
TABRIZ	Comonomer: Butene-1	Septic tanks Recycling tanks Rotomolded items	Antioxidant UV stabilizer

Typical Properties			
Resin Properties	Unit	Typical	Test Method
Melt Flow Index (190°C / 2.16 kg)	g/10 min	4	ASTM D1238
Density	g/cm ³	0.938	ASTM D1505
Vicat Softening Point	°C	115	ASTM D1525
HDT (120°C/hr, 1.82 MPa)	°C	75	ASTM D648
Melting Point	°C	127	ASTM D2117
Tensile Stress at Yield	MPa	15	ASTM D638
Tensile Stress at Break	MPa	23	ASTM D638
Elongation at Yield	%	8	ASTM D638
Elongation at Break	%	900	ASTM D638
ESCR (IGEPAL 10%, F50, 50°C)	hr	200	ASTM D1693
Flexural Modulus	MPa	650	ASTM D790
Charpy Impact (Notched, 23°C)	kJ/m ²	18	ASTM D6110
Charpy Impact (Notched, -20°C)	kJ/m ²	7.76	ASTM D6110
Yellowness Index	—	-1	ASTM E313
Whiteness Index	—	60	ASTM E313

Notes: Values shown are typical, not specifications. Confirm results by testing.

The manufacturer classifies this grade as HDPE; its density falls in the MDPE range.

UA grade suffix: general antioxidant and light stabilizer.

Source: Tabriz Petrochemical Company | Typical Data Sheet, June 2026.