

Producer: TOTAL PETROCHEMICALS / UNITED STATES (U.S.A)

HDPE TOTAL HP401N

Polyethylene:

High Molecular Weight
High Density Pipe Resin
(Natural)

Characteristics

- Excellent Processability
- Excellent melt strength
- NSF certified to D3350, CSA B137.1 (water) and CSA C448 (geothermal)
- NSF Standard 14/61 certification for potable water
- FDA Compliant⁽⁶⁾

Applications

- Potable water
- Geothermal
- Gas distribution
- Industrial and mining
- Sewer and sewer relining
- Gas and oil gathering
- Fiberoptic innerduct
- General pipe relining

PROPERTY	TEST	VALUE
<u>Resin Properties</u> ⁽¹⁾		
Melt Flow Rate, g/10 min 190°C/2.16 kg 190°C/21.6 kg (HLMI)	D 1238	0.08 8.0
Density, g/cm ³	D 792	0.945
Melting Point, °F	D 3417	258
<u>Mechanical Properties</u> ⁽¹⁾⁽²⁾		
Tensile Strength @ Yield, psi	D638, Type IV Specimen, 2 in/min	> 3,300
Elongation @ Break, %	D-638, Type IV Specimen, 2 in/min	> 800
Flexural Modulus @ 2% Strain, psi	D790	125,000
Notched Izod Impact Strength, ft-lb/in notch	D 256, 1/8 in thick specimen	11.0
Shore Hardness, D Scale	D 2240	63
ESCR ⁽³⁾ , hrs	D 1693, cond. C, 100% Igepal	>1,000 no failures
PENT ⁽⁴⁾ , hrs	F1473	> 100
<u>Pipe Properties</u>		
Hydrostatic Design Basis ⁽⁵⁾ , psi 73°F (23°C) 140°F (60°C)	D 2837	1,600 800
Cell Classification	D 3350	345464
PPI Recommended Designation		PE 3608, PE 3408
<u>Processing Recommendations</u>		
Extruder Temperature Range		375 – 430 °F
Melt Temperature During Processing		410 °F
Vacuum Tank Water Temperature		73 °F

(1) Data developed under laboratory conditions and are not to be used as specification, maxima or minima.

(2) The data listed was determined on press molded specimens and may, therefore, vary from specimens taken from pipes.

(3) Environmental Stress Crack Resistance (ESCR)

(4) Pennsylvania Notch Tensile Test (PENT)

(5) Blended with approved black PE masterbatch

(6) Complies with 21 CFR § 177.1520, Para. (c) 2.1 and 2.2