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TOTAL PETROCHEMICALS

TOTAL PETROCHEMICALS USA, INC.

HDPE HP401N

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

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

TOTAL