MDPE for Gas Transmission

MDPE medium density polyethylene pipe is primarily used for medium-pressure gas and propane transmission. United Poly System's MDPE is flexible, durable and can be manufactured in long runs for point-to-point installation. MDPE is certified for underground use, but for exterior use only. United Poly System manufacturers MDPE in sizes from ¾ to 6 inches in SDR 11 and SDR 13.5. It is shipped in 40- or 50-ft sticks and is also available in coils.

- Flexible
- Extremely durable
- Low cost
- Manufactured in long runs for point-to-point installation
- Acceptable for all external, underground gas and propane use
- Same manufacturing process and equipment as standard HDPE pipe/conduit
- Resistant to slow crack growth (SCG) and rapid crack propagation (RCP

Applications include:

- Utility Gas transfer from gas main to building or house meter
- Residential Plumbing Gas transfer from meter to other external uses (gas grill, pool heating, fire pit, external building, lighting, etc.). Not for indoor use.
- Propane Transmission for heating and other applications

Product Information

- BARCODE to be included in print line per ASTM F2897
- Manufactured in accordance with ASTM D2513
- Meets ASTM D3350 material grade PE2708

MDPE for Gas Transmission

MDPE D2513 Properties

Property	Nominal Value
Density, Natural	0.939 gm/cc
Density, Yellow	0.943 gm/cc
Melt Index (190°C/2.16 kg)	0.20 gm/10 min
Flow Rate (190°C/21.6 kg)	20 gm/10 min
Tensile Strength @ Yield	2,800 psi
Ultimate Elongation	>800%
Flexural Modulus, 2% Secant	100,000 psi
PENT	>1000 hr
Brittleness Temperature	<-180°F
Vicat Softening Temperature	248°F
Izod Impact Strength (Notched)	10 ft – lbf/in.
Thermal Expansion Coefficient	1.0 x 10-4 in./in./°F

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

Design pressure rating for natural gas, psig at 73°F:

- 80 psi for SDR 13.5
- 00 psi for SDR 11

Ratings are in accordance with DOT CFR 49, Part 192, §192.121 and §192.123.

Maximum design pressure was amended to 125 psig (reference §192.123a) when designed in accordance with §192.121 for nominal pipe sizes up through 12 in. IPS (§192.123e.3).