

OIL CREEK PLASTICS

GAS LPG



LPG SERVICE

The Plastic Pipe Institute has issued the following “Use Recommendation” for Polyethylene Piping systems for LPG and its major component, propane gas. (Technical Report PPI-TR22- July 1974)

USE RECOMMENDATIONS

The information collected indicates that polyethylene plastic piping is satisfactory for transporting LPG and its major component, propane gas. This information also indicates that pressure design parameters based on propane gas should be adequate and reasonable. However, until more information is available, these recommendations cover only commercial propane vapor in detail.

These use recommendations cover polyethylene plastic pipe for commercial propane gas systems that serve 10 or more customers or for systems, any portion of which is located in a public place, such as a highway.

- (1) The polyethylene pipe, tubing and fittings should be only those specific types designated as PE-2708 or PE-4710 and meeting the appropriate requirements of ASTM D2513.
- (2) A long-term hydrostatic strength (design basis) of 1000 PSI should be used in the design of polyethylene piping systems for commercial propane gas distribution at pipe temperatures of 73°F or lower. The long-term hydrostatic strength measurements should be made in accordance with ASTM D2837.
- (3) Polyethylene piping should be used only in underground commercial propane gas distribution systems designed to operate at internal pressures and temperatures such that condensation will not occur. These conditions are as follows:

Maximum internal pressure, PSIG

Temperature, F	Propane	Butane
10	30	—
20	40	—
30	50	—
40	60	2.5
50	75	5
60	90	10
65 and higher	100	14



OIL CREEK PLASTICS

GAS PIPE & TUBING

PE-2708 - YELLOW - MEDIUM DENSITY

All pipe, tubing and fittings furnished by Oil Creek Plastics, Inc., conform to the requirements of ASTM D2513 and ANSI B31.8.

NOMINAL SIZE	NOMINAL O.D.	SDR*	MINIMUM WALL	WEIGHT PER 100'	UNIT LENGTHS
IPS PIPE					
1/2"	.840	9.3	.090	8.7	150/500
3/4"	1.050	11.0	.095	11.6	150/500
1"	1.315	11.0	.120	18.3	150/300/500
1-1/4"	1.660	11.0	.151	27.9	150/300/500
1-1/4"	1.660	10.0	.166	30.0	150/500
1-1/2"	1.900	11.0	.173	38.3	150/500
2"	2.375	11.0	.216	59.7	100/200/500
3"	3.500	11.5	.304	125.0	100/200/20/40
4"	4.500	11.5	.391	206.0	20/40
6"	6.625	13.5	.491	386.0	20/40
6"	6.625	11.0	.602	475.0	20/40

CTS TUBING

1/2"	.625	—	.090	6.3	150/500
1"	1.125	—	.099	13.0	150/500

$$*SDR = \frac{OD}{MIN. WALL}$$

PE-4710 - BLACK WITH YELLOW STRIPES - HIGH DENSITY*

NOMINAL SIZE	NOMINAL O.D.	SDR*	MINIMUM WALL	WEIGHT PER 100'	UNIT LENGTHS**
IPS PIPE					
2"	2.375	11.0	.216	62.0	100/300/500

CTS TUBING

1/2"	.625	—	.090	6.3	100/300/500
1-1/4"	1.375	—	.121	25.0	100/300/500

* Conforms with ASTM D2513. Check with local gas utility to assure that this product meets utility code.

** Sizes listed are from inventory. Special lengths can be manufactured upon customer's request.

JOINING

Polyethylene gas piping may be joined by either heat fusion or mechanical type fittings. Briefly mentioned are the different types of heat fusion. Complete detailed fusion procedure for joining Oil Creek Plastics Gas Pipe is available upon request. If one chooses the use of mechanical type fittings for joining, one should refer to manufacturer's instructions for proper use of these products.

SOCKET FUSION — this technique can be done by hand with the minimum use of tools. It consists of simultaneously heating the external surface of the pipe end and internal surface of a socket fitting.

BUTT FUSION — with this technique, the use of an application unit must be used. It consists of simultaneously heating the squared ends of matching surfaces, such as pipe to pipe or pipe to fitting.

SIDEWALL FUSION — with this technique, the use of an application unit must be used. It consists of simultaneously heating both external surface of the pipe and matching surface of a "saddle" type fitting.

