20.2.1.4 Polyethylene Fittings

General

A. Fittings shall be made of high density polyethylene (HDPE) and shall comply with the requirements of ISO 4427 PE 100. The material shall be produced by a member of the PE100 + Association.

B. Manufacturer shall also supply the gaskets for use in PE100 flange connections, and provide general recommendations on associated equipment such as valves, fittings, nuts; bolts and other accessories, for the detailed specification for gaskets refer to Section 02640 DI Pipe and Fitting Specification.

C. PE100 fittings shall comply with the requirements of ISO 4427-3 and shall be injection molded from PE100 material compatible to that of the pipe or else fabricated from PE100 pipes. The wall thickness of the body of the fitting at any point shall be equal to or greater than the minimum wall thickness of the corresponding pipe.

D. Only injection molded fittings shall be used for pipe sizes of up to 160 mm OD.

E. Pipes and Fittings shall be from same MANUFACTURER (except Mechanical Fittings).

F. A protection measures between dissimilar metals like between flanges and fittings etc. shall be added.

G. The straight length of fittings to be butt fusion welded together shall long enough that the fittings can be held firmly by two clamps on the butt fusion welding machine.

H. The Fittings that made of Ductile Iron (D.I.) shall be fusion bounded epoxy coating in accordance to Section 02640 DI Pipe and Fitting Specification.

20.2.1.5 Butt Fusion Fittings

A. Butt fusion fittings shall be in accordance with DVS 2207-1 and shall be manufactured by injection molding, a combination of extrusion and machining, or fabricated from PE pipe conforming to this specification.

B. Fabricated fittings shall be manufactured using a Data logger to record fusion pressure and temperature. Butt fusion fittings shall have a pressure rating no less than that of the pipe. The fittings shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, voids and other injurious defects.