HDPE Smooth Wall Jacket

Ductile Iron

**HDPE JACKET**
**TOUGH, NON-CORROSI VE, SEAMLESS**
High Density Polyethylene has proven to be the most reliable and structurally strong material available as a standard jacketing and core pipe material. Not only is HDPE the standard protective jacketing material in Europe, it is fast becoming the standard jacket in America. The tough, rugged nature of HDPE complements its flexibil ity and structural strength, guarding against cracking, star-crazing or other damage often caused by abuse or rough handling, as observed in other jacket materials. HDPE jacketing is non-corrosive, requiring no cathode protection or special coatings. In fact, HDPE jacketing has more ultra-violet (UV) inhibitor than any other jacketing material and can be used for aboveground installations. The seamless property of HDPE jacketing insures the watertight integrity of HDPE. Each length of factory-preinsulated pipe is “pressure tested” when polyurethane foam is injected between the HDPE jacket and the steel pipe, using state-of-the-art, high pressure polyurethane foam equipment. The expanding polyurethane foam flows between specially designed support spacers, completely filling the annular space while exerting pressure against the jacket, insuring that the jacket is watertight without any pinholes, cracks or crazes that can allow moisture penetration into the insulation.

**GENERAL**

**SERVICE PIPE**
Carrier pipe shall be Ductile Iron, Pressure or Special Class as specified, in nominal lengths standard to the industry for the specified product. Pipe and fittings shall contain an internal cement lining and be coated inside and out with a bit mastic seal coat. Systems operating over 120°F shall not be coated internally. Preinsulated pipe sections shall be insulated from the bell end to just short of the spigot insertion stop mark. Joints shall be bell and spigot, push-on type, with SBR gaskets for cold applications, or EPDM gaskets for applications operating over 140°F. Mechanical or restrained joints may be used if required by the project. Maximum operating temperature with EPDM gaskets is 250°F.

**INSULATION**
Insulation shall be rigid, 90 to 95% closed cell polyurethane with 2.0 to 4.0 pounds per cubic foot density and a “K” factor of .14 at 75°F per ASTM C 518. The polyurethane foam shall be CFC-free and comply with HH-I-1751/4. The polyurethane foam shall be injected into the annular space with low-pressure foam equipment. Centering spacers shall be factory-installed to insure uniform insulation around the pipe. Insulation thickness shall be as shown on the table in the contract drawings, but not less than 1.3”. Maximum temperature rating is -40°F to 240°F.

**JACKET**
The outer protective jacket shall be High Density Polyethylene (HDPE) per ASTM D 1248, Type III, Category 5, Class C, Grade E710. The HDPE jacket shall be seamless and pressure-tested for watertight integrity during foaming.

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**MOISTURE BARRIER**
Mastic moisture barriers shall be factory-applied to each pipe end. End seals shall be mastic completely sealing the exposed end of the insulation.

**FITTINGS**
Carrier fittings shall be welded, except sizes smaller than 2” shall be socket-welded. If requires by project specifications, welds shall be radiographically inspected. Fittings include expansion loops, elbows, tees, reducers and anchors.

**FIELD JOINT CLOSURES**
All joints shall be field-insulated per the manufacturer’s recommendation, using a two-part foam injection method or a pre-formed half shell with a full-length Aluminum Band.