

SEWPCC UPGRADING/EXPANSION PROJECT  
 BID OPPORTUNITY NO. 976-2016

SECTION 22 10 01.08		
HIGH-DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGS-GAS SERVICE		
Item	Size	Description
General	All	Pipe lengths, fittings, and flanged connections to be joined by thermal butt-fusion shall be of the same type, grade, and class of polyethylene compound and supplied from the same raw material supplier.
Pipe	12 mm to 100 mm	<p>ASTM D3350, high-density polyethylene, maximum allowable hoop stress 11032 kPa at 23 degrees C.</p> <p>Polyethylene resins shall conform to Type PE 3408 or better.</p> <p>Protection shall be provided against ultraviolet light degradation using carbon black, not less than 2 percent well dispersed in the resin.</p> <p>Pipe wall thickness shall reflect the required SDR* and diameter, as shown in Table 8, ASTM F714.</p> <p>Design Stress Rating: ASTM F714, 11032 kPa hydrostatic.</p> <p>Pressure Rating: 160; SDR*11</p> <p>*SDR: standard dimension ratio = OD/thickness</p>
Fittings	100 mm & smaller	Molded fittings, butt fusion joined, conforming to ASTM D3261.
Flanges	All	Van Stone type, cast ASTM A351/A351M, Type 316 stainless steel backing ring, IPP Deltaflex convoluted design or equal for bolting to ANSI B16.1, Class 125; ANSI B16.5, Class 150; and AWWA C207, Class E. Pressure performance of the backing ring equal to SDR rating of the pipe with safety factor of two. Stub ends same grade HDPE and pressure rating as pipe.
Bolting		<p>Stainless steel, ASTM A193/A193M Grade B8M studs and ASTM A194/A194M Grade 8M hex head nuts.</p> <p>Washers shall be same material as bolts.</p>
Gaskets		Flat ring, 1/8-inch ethylene propylene rubber (EPR).
Manufacturer		CP Chem Performance Pipe, a Division of Chevron Phillips Chemical Company, Driscoplex Series 6800 PE 3408; or equal.

END OF SECTION