

# POLYCOR HDPE HDPE PIPING SYSTEM



#### **POLYCOR HDPE**

THERMACOR'S POLYCOR HDPE is a factory-fabricated, preinsulated piping system for below or above ground distribution of hot and chill water. The system is designed with a High Density Polyethylene (HDPE) carrier pipe, closed cell polyurethane foam insulation, and an HDPE jacket.

#### **Carrier Pipe**

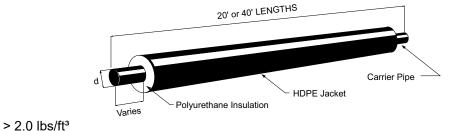
- High Density Polyethylene (HDPE)
- SDR 32.5 SDR 7.3

#### **Polyurethane Insulation**

- Density
- "K" Factor
- Compressive Strength
- Closed Cell Content

#### Jacket

High Density Polyethylene (HDPE)



≤ 0.16 @ 75°F

≥ 90% @ 75°F

> 30 psi



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HDPE PIPING SYSTEM

# **SPECIFICATION GUIDE \***

#### GENERAL

All underground and above ground piping materials transporting chill water and hot water shall be **POLY-COR HDPE** as manufactured by **THERMACOR PRO-CESS INC.** All pre-insulated pipe, fittings, insulating materials, and technical support shall be provided by the Pre-insulated Piping System manufacturer.

### SERVICE PIPE

The carrier pipe shall be high density polyethylene (HDPE), conforming to ASTM D-3350. Pipe and fittings are manufactured from extra high molecular weight polyethylene compound and fabricated to Standard Dimensional Ratio (SDR) wall thickness in standard IPS sizes. Available pressure ratings range from 50 psi (SDR-32.5) to 255 psi (SDR-7.3) at 73°F, with operating temperatures from -50°F and lower, to +140°F by applying an appropriate design factor.

### INSULATION

Insulation of the service pipe shall be rigid polyurethane foam with a minimum 2.0 lbs/ft<sup>3</sup> density, 90% minimum closed cell content, and a "K" factor not higher than .18 at 75°F per ASTM C518. The polyurethane foam shall be CFC-free. The polyurethane foam shall completely fill the annular space between the service pipe and jacket, and shall be bonded to both. Insulation shall be provided to the minimum insulation thickness specified, within manufacturing tolerances.

### JACKET

The outer protective jacket shall be High Density Polyethylene (HDPE). The HDPE jacket shall be seamless and pressure-tested for watertight integrity. PVC, FRP, HDUP or tape materials are not allowed.

### FITTINGS

Carrier pipe fittings of the same material and pressure rating shall be heat fusion butt-welded to adjacent pipe sections. Fittings that are butt- fusion welded are to be field insulated or, at engineer's option, factory insulated. If fittings are factory manufactured, fittings are pre-insulated using factory PE fitting covers welded to the jackets.

### **FIELD JOINTS**

Service pipe shall be hydrostatically tested as per the Engineer's specification with a factory recommendation of 1.5 times the specified pressure of the system. Straight joint sections shall be insulated using urethane foam to the thickness specified, jacketed with split sleeve, and sealed with a heat shrink sleeve. All joint closures and insulation shall occur at straight sections of pipe. All insulation and jacketing materials shall be furnished by THERMACOR.

## INSTALLATION

Installation of the piping system shall be in accordance with the manufacturer's instructions. Factory trained field technicians shall be provided for critical periods of installation, unloading, field joint instruction, and testing.

\* For alternate specifications, please contact THERMACOR.

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