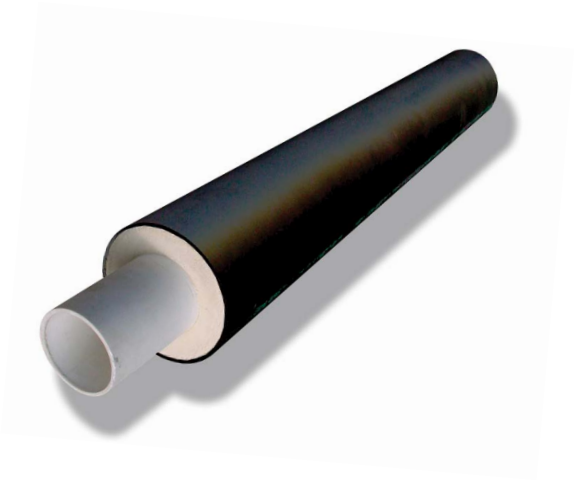
# CHILL-THERM

PVC PIPING SYSTEM

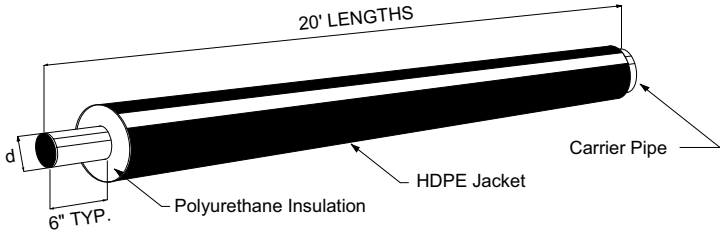


## CHILL-THERM

THERMACOR'S CHILL-THERM is a factory-fabricated, pre-insulated piping system for below ground distribution of chilled water. The system is designed with Polyvinyl Chloride (PVC) plastic pressure carrier pipe (type to be specified), closed cell polyurethane foam insulation, and a High Density Polyethylene (HDPE) or PVC jacket.

## Carrier Pipe

- Class 160 (SDR 26) (Gasket)
- Class 200 (SDR 21) (Gasket)
- C900/C905 (DR 14 - DR 25 ) (Gasket)
- PVC (Schedule 40 or 80) (Solvent Weld)
- CPVC (Schedule 40 or 80) (Solvent Weld)




## Polyurethane Insulation

| | |
|---|---|
| • Density | > 2.0 lbs/ft³ |
| • "K" Factor | ≤ 0.18 @ 75°F |
| • Compressive Strength | > 30 psi |
| • Closed Cell Content | ≥ 90% @ 75°F |

## Jacket

- High Density Polyethylene (HDPE)
- PVC 60, Type 1, Class 1

P.O. BOX 79670 · 1670 HICKS FIELD ROAD EAST · FORT WORTH, TEXAS 76179 · 817 / 847-7300 · FAX 817 / 847-7222

# SPECIFICATION GUIDE *

## GENERAL

All underground and above ground piping materials transporting chilled water, potable water, and low temperature process fluids shall be **CHILL-THERM** as manufactured by **THERMACOR PROCESS INC.** All straight pipe, fittings, insulating materials, and technical support shall be provided by the manufacturer.

## SERVICE PIPE

The carrier or service pipe shall be PVC, SDR-26, Class 160, bell and spigot, gasket joint pipe conforming to ASTM D-2241 and D-1784. PVC resin compound shall be PVC-1120, Class Designation 12454-B. Pipe is rated for 160 psi at 73°F. *At the Engineer's option*, SDR-21, Class 200 PVC, having a pressure rating of 200 psi at 73°F, or C900 or C905 DR rated pipe, may be specified. Pre-insulated pipe sections shall be supplied in 20 foot lengths and insulated from the bell end to just short of the spigot insertion stop mark.

## INSULATION

Insulation of the service pipe shall be rigid polyurethane foam with a minimum 2.0 lbs/ft³ 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). HDPE shall have a minimum wall thickness as specified below. No FRP, HDUP, or tape jacket allowed.

## FITTINGS

Fittings shall be PVC with a gasket joint similar to that of the PVC pipe. Cast or Ductile iron fittings conforming to the pipe dimensions may be used for sizes greater than 12". Fittings are not insulated and are poured in concrete thrust blocks at all changes of direction. *Thrust block design and sizing is the responsibility of the design engineer.*

## 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.
Joints between pipe sections are not insulated to allow for expansion and contraction of the gasketed joint. *At the Engineer's option*, straight field joints may be covered by a split or oversized sleeve and sealed with a heat shrink sleeve to prevent the ingression of moisture or debris.

## 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.*

**THERMACOR PROCESS INC.**

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