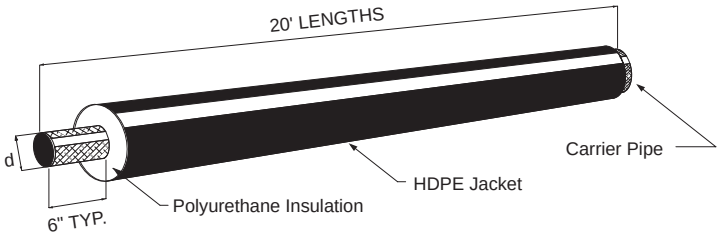
FIBER-THERM

FRP PIPING SYSTEM

FIBER-THERM

THERMACOR'S FIBER-THERM is a factory-fabricated, pre-insulated piping system for below ground distribution of chilled water, heating water, domestic hot water, process fluids, and condensate return. The system is designed with Fiberglass Reinforced Plastic (FRP) pipe, closed cell polyurethane foam insulation, and High Density Polyethylene (HDPE) jacket.



Carrier Pipe

- FRP - Fiberglass Reinforced Plastic
- ASTM D2996
- MIL-28584B

Polyurethane Insulation

• Density	> 2.0 lbs/ft³
• "K" Factor	≤ 0.15 @ 75°F
• Compressive Strength	> 30 psi
• Closed Cell Content	≥ 90% @ 75°F

Jacket

- High Density Polyethylene (HDPE)

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 piping materials transporting chilled water, heating water, domestic hot water, process fluids, and condensate return shall be **FIBER-THERM** as manufactured by **THERMACOR PROCESS, L.P.** All straight pipe, fittings, insulating materials, and technical support shall be provided by the manufacturer.

SERVICE PIPE

The carrier or service pipe shall be FRP, fiberglass reinforced epoxy pipe. Pipe and fittings are capable of operating from -40 to 250°F at 140 psi. Piping is provided as plain-end by plain-end with a coupling for adhesive joining for 2" thru 6" and integral bell and spigot for 8" thru 16". All FRP pipe and fittings shall be joined with a matched taper epoxy adhesive joint cured by an external heat source.

INSULATION

Insulation of the service pipe shall be rigid polyurethane foam with a minimum 2.0 lbs/ft³ density, 90% minimum closed cell content, minimum and a "K" factor not higher than .15 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.

JACKET

The outer protective jacket shall be extruded, black, high density polyethylene (HDPE). No FRP, HDUP, or tape jacket allowed.

FITTINGS

Fittings shall be FRP, filament wound and joined with Thermosetting epoxy adhesive and cured with an external heat source. Fittings are not insulated and are poured in concrete thrust blocks at all changes of direction. Flanges are filament wound matching ANSI B16.1 for 150# flanges. *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 Manufacturer's recommendation of 1.5 times the specified pressure of the system. Joints between pipe sections are not insulated on FRP systems. *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. All 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.*

THERMACOR PROCESS, L.P.

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