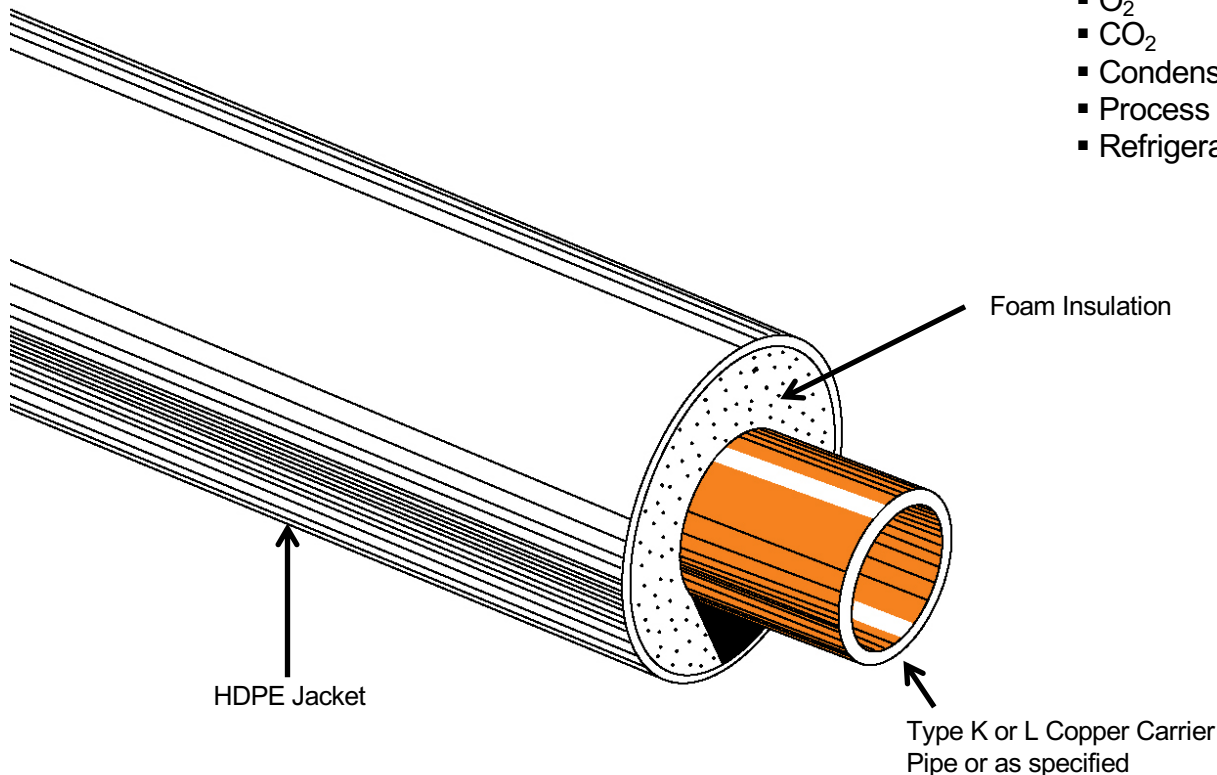


# Rovanco HDPE Jacketed Copper System

For Temperatures to 210°F Below Ground Applications.

- Hot Water
- Chilled Water
- Fuel Oil
- O<sub>2</sub>
- CO<sub>2</sub>
- Condensate
- Process Piping
- Refrigerant Piping



Rovanco's High Density Polyethylene (HDPE) Jacketed System is designed for piping systems below ground suitable for inside and outside applications. High quality foam insulation combined with a durable watertight jacket supplied in 20' or 40' random lengths, means an economical, high-quality system.

Rovanco's System is provided with a jacketing of HDPE, which can be supported from the outside with maximum supports spans. Fittings can be either field insulated or factory fabricated as specified.

The HDPE System comes complete with the carrier pipe of your choice, joint insulation materials and jacketing to make the installation completely watertight for applications of Medical Gas O<sub>2</sub>, CO<sub>2</sub>, Refrigerant, hot water, pumped condensate, chilled water, process, etc.

To find out more about Rovanco's HDPE Jacketed Copper System, you can visit our factory, phone us (815) 741-6700, fax us (815) 741-4229, visit our website at [www.rovanco.com](http://www.rovanco.com) or e-mail us at [marketing@rovanco.com](mailto:marketing@rovanco.com).

*This is a generic product datasheet and is not intended for submittal use.*

## SPECIFICATION DATA SHEET

### Sweat Copper Piping System for Hot Water, Chilled Water, Fuel Oil, LN<sub>2</sub>, CO<sub>2</sub>, Condensate, or Process Piping Applications

#### Carrier Pipe Types:

Type (K) or (L) Copper: 20-foot lengths  
Hard Drawn Seamless Copper Tubing conforming to ASTM B-819, cleaned and capped for Medical Gas Oxygen service.

Hard Drawn Seamless Copper Tubing conforming to ASTM B-88. Other classes of Copper pipe are available.

Other carrier pipe types are available upon request. Factory fabricated and pre-engineered to actual field dimensions.

#### Polyurethane Insulation:

Insulation shall be a polyurethane foam injected with one shot into the annular space between carrier pipe and jacket. Insulation shall be rigid, minimum 90% closed cell polyurethane with a minimum 2.0 lbs per foot<sup>3</sup> density, compressive strength of 30 psi @ 75°F and a thermal conductivity K factor no higher than 0.180 @ 75°F per ASTM C-518. Maximum operating temperature of urethane foam shall not exceed 250°F.

#### Polyisocyanurate Insulation:

Insulation shall be a polyisocyanurate foam injected with one shot into the annular space between carrier pipe and jacket. Insulation shall be rigid, >90% closed cell polyisocyanurate with a minimum 2.0 lbs per foot<sup>3</sup> density, compressive strength of 30 psi @ 75°F, a thermal conductivity initial K factor no higher than 0.14 @ 75°F per ASTM C-518 and an E84 25/50 passive fire resistance rating. Maximum continuous operating temperature of polyisocyanurate foam shall not exceed 300°F.

#### Jacketing Material:

The outer casing shall be high density polyethylene (HDPE) conforming to ASTM D3350, Type III, Category 5, Class C and Grade P23/P34. With a minimum of 2% by weight of carbon black. Minimum thickness is 150 mils. No FRP overwrap or sprayed jacketing will be allowed. Minimum jacket thickness shall be in accordance with Table 1.

Table 1:

Nominal Pipe Size In Inches	Minimum Insulation Thickness In Included	Jacket Size In Inches	Jacket Thickness In Mils
1-1/2	2.15	6.60	200
2	1.91	6.6	200
2-1/2	1.66	6.60	200
3	1.35	6.60	200
4	1.57	8.00	175
5	2.04	10.00	175
6	1.51	10.00	175
8	1.72	12.43	175
10	1.48	14.06	175
12	1.38	15.87	175
14	1.74	17.83	175
16	1.7	19.80	200
18	1.89	22.17	200
20	1.86	24.17	225

\* Other Pipe Sizes are available upon request.

#### Joining Method:

Straight lengths of pipe and fittings will be joined by brazing method in accordance with the Contract Specifications.

#### Fittings & Couplings:

All fittings and couplings will conform to pipe type and joined by brazing method, all to be in accordance with the Contract Specifications. They will be field insulated and jacketed by the installing contractor with materials supplied by the system supplier as per manufacturers' standard procedures. Carrier fittings and couplings are not supplied by Rovanco.

#### End Seals:

Each length of pre-insulated pipe can be fitted with a watertight mastic end seal at jacket and pipe surfaces. All terminal ends will be sealed with a field applied heat-shrink end seal.

#### Insulation of Straight Joints:

After brazing and testing, all joints shall be insulated and sealed as per manufacturers' standard procedures.

#### Backfill:

Should be tamped compactly in place so as to assure a stable surface. No rock should be used in the first foot of backfill. 24 inches, top to pipe to grade, of compacted fill shall meet H-20 Highway Loading.

#### Manufacturer's Assistance:

Rovanco will provide a field service man on-site to properly train the installing personnel in all phases of installation, (if required).

#### Vendor:

HDPE Jacketed Copper Piping System by Rovanco, Piping Systems, Inc., Joliet, Illinois or approved, ISO Certified, equal. Any alternate supplier must submit their technical data to the engineer ten days prior to bid date to be approved in writing as an equal.

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