



RETHINK TRADITION EMBRACE THE **ALTERNATIVE**

TECHNICAL DATA

Uses

For line set, HVAC, mechanical and plumbing lines in commercial and residential buildings.

ALT-Line™ Tube Key Specifications

- └ Tests to meet ASTM B280 and ASTM B1003:
Note that ASTM B280 Specifies COPPER Tubing. Alt-Line tests to the other specifications in ASTM B280 such as mechanical, cleanliness, pressure ratings, Eddy Current testing, etc.
- └ Approved Refrigerants:
R32, R134A, R143A, R290, R404A, R407, R410A, R417A, R421A, R422, R424A, R427A, R434A R437A, R433A, R445A, R446A, R447A, R448A, R449, R450A, R451, R452, R453A, R454, R455A, R456A, R507, R513, R600, R600a, R718, R1234yf, R1234ze, Ethylene Glycol
- └ Standard Lengths:
15', 25', 35', 50', 82', 100', and 164' coils in all diameters. 10' and 20' Straight Lengths. Insulated custom coils up to 164' available. Uninsulated coils available from 50-2,500' available.

ALT-Line™ Tube Testing Methods

- ASTM E8 – Tensile Test
- ASTM E18 – RW Hardness Test
- ASTM B153 – Expansion Test
- ASTM B1003 – Cleanliness Test
- ASTM B1003 – Pressure Test
- ASTM B968 – Flattening Test
- ASTM B88 – Hydrostatic Pressure Test
- ASTM B117 – Salt Spray Fog Test
- UL 207 - Line Set Refrigerant Tubing

ALT-Line™ Tube Sizes and Pressures

Product	Nominal Tube OD (inch)	Nominal Wall Thickness (inch)	Weight / Foot (lbs.)	Design Pressure (psig)	Continuous Operating Temperature
Liquid Line	1/4	0.026	0.06	1,100	250°F
	3/8	0.026	0.10	1,100	250°F
	1/2	0.026	0.13	700	250°F
Suction Line	3/8	0.026	0.10	1,100	250°F
	1/2	0.026	0.13	700	250°F
	5/8	0.026	0.17	700	250°F
	3/4	0.026	0.20	700	250°F

Insulation Specification Compliance

ASTM C 534,
2012 IECC: Section R403.3.1
2012 IECC: Section C403.2.8

2015 IECC: Section R403.4.1 2015 IECC: Section C403.2.10
Plenum Rated according to the International Mechanical Code (IMC)
California Building Energy Efficiency Standards, Title 24, Section 120.3 b (1 and 2) and c

Insulation Typical Properties

Property	Value	Test Method
Thermal Conductivity: Btu · in/h · ft ² · °F (W/mK)		
75°F Mean Temperature (24°C)	0.25 (0.036)	ASTM C 177 or C 518
100°F Mean Temperature (38°C)	0.257 (0.037)	
Water Vapor Permeability: Perm-in. [Kg/(s · m · Pa)]	0.03 (0.435 x 10 ⁻¹³)	ASTM E 96, Procedure A Meets Class 1 rating
Flame Spread and Smoke Developed Index through 1" wall thickness	25/50 rated	ASTM E 84, UL 723, CAN ULC S102.2 ①
Water Absorption, % by Volume	0.2 %	ASTM C 1763
Maximum Service Temperature	220°F (82°C)	ASTM C 534
Minimum Service Temperature ②	-297°F (-183°C)	ASTM C 534
Ozone Resistance:	Good	ASTM D 1149
UV Weather Resistance	Excellent: no deterioration ③	ASTM G154 tested to 5000 hours
Hot Surface Performance at 250°F (121°C)	Pass	ASTM C411 NFPA 90A and NFPA 90B

① CAN ULC S102.2 for up to 3/4" wall thickness.

② At -40 °F (-73 °C), the insulation becomes hard and brittle. This hardening characteristic does not affect thermal efficiency or water vapor permeability.

③ Meets the UV resistance requirements of ASTM C1775 which describes requirements for insulation protective jacketing used outdoors.

R-value	1/4" (6 mm)	3/8" (10 mm)	1/2" (13 mm)	5/8" (16 mm)	3/4" (19 mm)	7/8" (22 mm)	1-1/8" (29 mm)
1/2" (13 mm) Wall	3.8	3.3	3.3	3.3	3.3	3.3	3.3



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