

STANDARD AND MINI SPLIT LINE SETS FOR HVACR APPLICATIONS

Job Name	Contractor
Job Location	Wholesaler
Engineer	Streamline® Rep

Product Description:

Streamline® Standard and Mini Split Line Sets are available in either an elastomeric, coated elastomeric or polyethylene insulation for use in HVACR applications. All line sets will be manufactured in the United States.

Material:

Streamline® Standard and Mini Split Line Sets copper tube shall be made from C12200 grade of copper. Insulation is choice of elastomeric, coated elastomeric or polyethylene material. Elastomeric and polyethylene insulation types have a UV retardant added but it is recommended to cover or apply a coating for long term exposure. Coated elastomeric insulation utilizes a co-extruded jacket that requires no additional cover or coating.

Key Specifications:

Streamline® Standard and Mini Split Line Sets are made to meet the requirements of ASTM B1003.

Streamline® Standard and Mini Split Line Sets are third party verified in select sizes through Underwriters Laboratories (UL) for operating pressure of 700psi at 250°F. This rating includes fully annealed and brazed copper tubing.

Installation:

Installations and insulation material shall comply with the latest applicable building codes for the local jurisdiction. For elastomeric and polyethylene insulation, it is recommended, at minimum, to coat insulation on exterior applications with 2 coats of WB Finish a (recoat every 2-4 years). For more substantial protection, place in a protective jacket or protective channel. Reference local building codes for additional details.

References:

Product Line	Product Type	Diameter
 700 PSI R410A	Streamline® Refrigeration Service Coils	1/8" – 1-1/8"
	Streamline® Line Sets & Mini-Splits	1/8" – 1-1/8"
	Streamline® ACR - Type L (Hard Lengths)	1/8" – 1-3/8"
	Streamline® ACR - Type K (Hard Lengths)	1/8" – 2-5/8"



STANDARD AND MINI SPLIT LINE SET DATA

STANDARD LINE SETS WITH ELASTOMERIC INSULATION

Copper Tube Sizes		Lengths	Insulation Thickness	Optional Finishes
Liquid Line	Suction Line			
1/4" - 1/2"	3/8" - 1-1/8"	10' - 50' using 5' intervals; 60' & 100' (other lengths are available upon customer request)	3/8" - 1"	Flare nuts, 90-degree bends, custom connections, thermostat wire and taping

MINI SPLIT LINE SETS WITH ELASTOMERIC INSULATION

Copper Tube Sizes		Lengths	Insulation Thickness	Optional Finishes
Liquid Line	Suction Line			
1/4" - 3/8"	3/8" - 3/4"	15' - 50' using 5' intervals; 100' (other lengths are available upon customer request)	3/8" - 1"	Insulated liquid and suction lines and twin tube system, flare nuts, 90-degree bends, custom connections, mini-split wire or control cable and taping

DURAGUARD™ UV LINE SETS WITH COATED ELASTOMERIC INSULATION

Copper Tube Sizes		Lengths	Insulation Thickness	Optional Finishes
Liquid Line	Suction Line			
1/4" - 1/2"	3/8" - 7/8"	25', 35' & 50'	1/2" - 1"	Insulated liquid and suction lines, flare nuts, 90-degree bends, mini-split wire or control cable and taping

DURAGUARD™ PE LINE SETS WITH POLYETHYLENE INSULATION

Copper Tube Sizes	Lengths	Insulation Thickness
1/4" - 7/8"	35', 50', 100', 164' (insulation marked every foot)	1/2" - 3/4"

ELASTOMERIC INSULATION SPECIFICATION

INSULATION:

"R" Values

Pipe Insulation ID Size	Nom. 3/8"	Nom. 1/2"	Nom. 3/4"	Nom. 1"
1/4"	2.8	3.8	6.4	8.3
3/8"	2.8	3.3	5.9	7.2
1/2"	2.6	3.3	5.5	7.2
5/8"	2.6	3.4	5.6	7.0
3/4"	2.4	3.3	5.5	7.0
7/8"	2.4	3.3	5.4	7.0
1-1/8"	2.2	3.3	5.4	7.2

SPECIFICATION COMPLIANCE

- ASTM B1003
- ASTM C 534, Type II — Sheet Grade I
- ASTM C 1534
- ASTM E 84, NFPA 255, UL 723
- CAN/ULC S102
- NFPA 90A, 90B
- ASTM G21/C1338
- ASTM G22
- ASTM D 1056, 2B1
- MIL-P-15280J, FORM S
- MIL-C-3133C (MIL STD 670B),
- Grade SBE 3
- MEA 107-89M
- UL 181
- UL 94 5V-A, V-0, File E 55798
- City of Los Angeles – RR 7642
- ASTM D 1149

PHYSICAL PROPERTIES

Specifications	Values	Test Method
Thermal Conductivity, Btu • in./h • ft ² • °F (W/mK)		
75°F Mean Temperature (24°C)	0.245 (0.035)	ASTM C 177 or C 518
90°F Mean Temperature (32°C)	0.254 (0.037)	
Water Vapor Permeability, Perm-in. [Kg/(s•m•Pa)]	0.05 (0.725 x 10–13)	ASTM E 96, Procedure A
Flame Spread and Smoke Developed Index through 1" (25mm)*	25/50*	ASTM E 84 CAN/ULC S102
Mold Growth	UL181	Meets requirements
Fungi Resistance	ASTM G21/C1338	Meets requirements
Bacterial Resistance	ASTM G22	Meets requirements
Water Absorption, % by Volume	0.2%	ASTM C 209
Upper Use Limit	220°F (105°C)**	ASTM C 534
Lower Use Limit	-297°F (-183°C)**	ASTM C 534
Ozone Resistance	GOOD	Ozone Chamber Test

COATED ELASTOMERIC INSULATION SPECIFICATION

INSULATION:

"R" Values

Pipe Insulation ID Size	Nom. 1/2"	Nom. 3/4"	Nom. 1"
1/4"	4.0	6.1	9.6
3/8"	3.6	5.6	8.5
1/2"	3.4	5.4	7.9
5/8"	3.3	5.4	7.5
3/4"	3.1	5.4	7.5
7/8"	3.2	5.4	7.2
1-1/8"	3.1	5.5	7.1

SPECIFICATION COMPLIANCE

- ASTM B1003
- ASTM C 534, Type I — Tubular, Grade I
- ASTM E 84, NFPA 255, UL 723
- NFPA 90A, 90B
- ASTM G21/C1338
- ASTM G22
- ASTM D 1056, 2BI
- MIL-P-15280J, FORM S
- MIL-C-3133C (MIL STD 670B),
- UL 94 5V-A, V-0, HF-I (File E 300774)
- 2012, 2015, 2018 IECC, IMC, IRC
- 2016 CA Title 24, Part 6, Subchapter 3, Section 120.3
- RoHS Compliant

PHYSICAL PROPERTIES

Specifications	Values	Test Method
Thermal Conductivity, Btu • in./h • ft ² • °F (W/mK) 75°F Mean Temperature (24°C)	0.242 (0.035)	ASTM C 177 or C 518
Water Vapor Permeability,	<0.01 perm-in. insulation ≤0.05 perms jacket	ASTM E 96
Flame Spread and Smoke Developed Index through 1-1/2" (37.5mm)	25/50	ASTM E 84
Mold Growth Fungi Resistance Bacterial Resistance	UL181 ASTM G21/C1338 ASTM G22	Meets requirements Meets requirements Meets requirements
Water Absorption, % by Volume	0%	ASTM C 209
Upper Use Limit	220°F (104°C)**	ASTM C 534
Lower Use Limit	-297°F (-183°C)**	ASTM C 534
Hot Surface Performance 250°F	ASTM C411, NFPA 90A	Meets requirements
UV Resistance (Artificial Aging)	ASTM G153	Meets requirements

POLYETHYLENE INSULATION SPECIFICATION

Insulation:

Wall thickness is 1/2" - 3/4" and product is made according to ASTM C 1427-07 (insulation material for use on typical commercial system non-cross-linked)

"R" Value:

1/2" Wall = R3

3/4" Wall = R5

In accordance with ASTM instructions, PE insulation ends must be sealed to prevent air/moisture intrusion. Both ends of the tube should be taped with 2" wide Polyken-936-30 tape or equivalent (high U.V. Resistant/High tack joint wrap tape).

SPECIFICATION COMPLIANCE

Description	Specifications	Notes
Water Vapor Permeability	ASTM E96-00	$r = 4 \times 10^{-5} \text{ [mg/(h} \cdot \text{m} \cdot \text{Pa)]}$
Working Temperature	ASTM C 1427-07	Type I (tubular), Grade I
Surface Burning Characteristics	ASTM E84 (25/50)	Flame & Spread Index Less Than 25 & Smoke Development Index less than 50
Thermal Conductivity	ASTM C 335-95	"k" at 104°F (average temperature) = 0.263468 (Btu in.)/sq.ft. °F h)
	ISO EN 8497	"λ" at 40 °C (average temperature) = 0.038 W/(m·K)

WARNING: This product includes polyethylene (PE) foam insulation. Although this product meets ASTM E84 25/50 flame/smoke index, PE foam insulation may nonetheless be highly flammable when ignited. To reduce the risk of fire spread, property damage, or personal injury, great caution should be exercised when using this product in proximity to any ignition sources or open flames.