

PHYSICAL PROPERTIES		SEAMLESS RUBBER INSULATION	TEST METHODS
Thermal Conductivity (K) BTU -in/hr-Ft2 - °F (W/mK)	90° F (32° C) Mean Temp 75° F (24° C) Mean Temp 50° F (10° C) Mean Temp	.282 (.041) .277 (.040) .270 (.039)	ASTM C 177 ASTM C 177 ASTM C 177
Operating Temperature Range	Upper	200° F (104° C)	
Flexible to -100° F (-73° C)	Lower	-70° F (-57° C)	
Water Vapor Permeability Dry Cup. Perm-In		.10	ASTM E 96
Water Absorption % weight gain		5%	ASTM D 1056
Ozone Resistant		Pass	ASTM D 1171
Chemical/Solvent Resistance		Good	
Mildew Resistance/Air Erosion		Pass	UL 181

THICKNESS RECOMMENDATIONS\* - TO CONTROL CONDENSATION

PIPE SIZE	LINE TEMP		LINE TEMP		LINE TEMP		LINE TEMP	
	50° F	10° C	35° F	2° C	0° F	-18° C	-20° F	-29° C
Normal Conditions (Max 85°F, 29°C - 70% R.H.)								
3/8" ID thru 1-3/8" ID	3/8"	10 mm	1/2"	13 mm	3/4"	19 mm	1"	25 mm
Over 1-3/8" thru 3" IPS	3/8"	10 mm	1/2"	13 mm	1"	25 mm	1"	25 mm
Over 3" IPS thru 4" IPS**	1/2"	13 mm	1/2"	13 mm	1"	25 mm	1-1/4"	32 mm
Over 4" IPS	1/2"	13 mm	3/4"	19 mm	1"	25 mm	1-1/4"	32 mm
Mild Conditions (Max 80°F, 26°C - 50% R.H.)								
3/8" ID thru 2-1/8" ID	3/8"	10 mm	3/8"	10 mm	1/2"	13 mm	1/2"	13 mm
Over 2-1/8" thru 3" IPS	3/8"	10 mm	3/8"	10 mm	1/2"	13 mm	3/4"	19 mm
Over 3" IPS thru 4" IPS**	1/2"	13 mm	1/2"	13 mm	3/4"	19 mm	3/4"	19 mm
Over 4" IPS	1/2"	13 mm	1/2"	13 mm	3/4"	19 mm	3/4"	19 mm
Severe Conditions (Max 90°F, 32°C - 80% R.H.)								
3/8" ID thru 1-1/8" ID	3/4"	19 mm	3/4"	19 mm	1-1/4"	32 mm	1-1/4"	32 mm
Over 1-1/8" ID thru 4" IPS	3/4"	19 mm	1"	25 mm	1-1/2"	38 mm	1-1/2"	38 mm
Over 4" IPS	3/4"	19 mm	1-1/4"	32 mm	1-3/4"	44 mm	2"	50 mm

Seamless Rubber in thickness notes within the specified temperature ranges will prevent condensation on indoor piping under design conditions defined below. Thickness recommendations above 1" can be sleeved to achieve thickness desired.

**Normal:** Maximum severity of indoor conditions seldom exceed 85° F (29° C) and 70% R.H. in United States.

**Mild:** Typical conditions are most air-conditioned spaces and arid climates.

**Severe:** Generally found in areas which excessive moisture is introduced or in poorly ventilated areas where the temperature may be depressed below the ambient. Under conditions of high humidity, additional thickness of insulation may be required.

\*\*Available: Nom. 1/2" or Nom. 3/4" thickness only

SEAMLESS RUBBER "R" VALUES PER SQUARE FOOT					
Pipe OD or Nominal Insulation ID		R Value 3/8" (10 mm) Wall	R Value 1/2" (13 mm) Wall	R Value 3/4" (19 mm) Wall	R Value 1" (25 mm) Wall
3/8"	10 mm	2.3	3.1	4.7	-
1/2"	13 mm	2.2	2.9	4.7	7.6
5/8"	16 mm	2.1	2.7	4.6	7.1
3/4"	19 mm	2.0	2.6	4.6	6.7
7/8"	22 mm	1.9	2.7	4.6	6.5
1-1/8"	29 mm	1.8	2.6	4.6	5.1
1-3/8"	35 mm	1.8	2.7	4.4	5.8
1-1/2" IPS	-	2.0	2.6	4.3	5.5
1-5/8"	41 mm	2.1	2.7	4.3	5.5
2-1/8"	54 mm	1.9	2.6	4.0	5.2
2" IPS	-	2.0	2.7	4.1	5.2
2-1/2" IPS	64 mm	1.9	2.6	3.9	5.0
2-5/8"	67 mm	2.0	2.7	4.0	5.1
3-1/8"	79 mm	1.9	2.5	3.8	4.9
3" IPS	-	2.0	2.8	3.9	5.0
3-5/8"	92 mm	-	2.6	3.7	-
4-1/8"	105 mm	-	2.6	3.7	-
4" IPS	-	-	2.8	3.9	-
5" IPS	-	1.9	2.6	3.9	-
6" IPS	-	-	2.4	3.6	-
8" IPS	-	-	2.4	3.6	-

Note: "R" factors were calculated from using the K factor of .277 (75°F, 24°C mean temp) and nominal wall thickness is each case. Lower operating temperatures will result in improved R values.

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