

Armaflex Insulation Thickness Recommendations: Pipes For Controlling Outer Insulation Surface Condensation

Pipe Size	Line Temperatures			
	50°F (10°C)	35°F (2°C)	0°F (-18°C)	-20°F (-29°C)
BASED ON NORMAL CONDITIONS* 3/8"ID through 1-1/8"ID (10 mm–28 mm) Over 1-1/8"ID through 2-1/8"ID (28 mm–54 mm) Over 2-1/8"ID through 2-5/8"ID (54 mm–65 mm) Over 2-5/8"ID through 6"IPS (65 mm–168 mm)	Nom 3/8" (10 mm) Nom 3/8" (10 mm) Nom 3/8" (10 mm) Nom 1/2" (13 mm)	Nom 1/2" (13 mm) Nom 1/2" (13 mm) Nom 1/2" (13 mm) Nom 3/4" (19 mm)	Nom 3/4" (19 mm) Nom 1" (25 mm) Nom 1" (25 mm) Nom 1" (25 mm)	Nom 1" (25 mm) Nom 1" (25 mm) Nom 1-1/4" (32 mm) Nom 1-1/4" (32 mm)
BASED ON MILD DESIGN CONDITIONS** 3/8"ID through 2-5/8"ID (10 mm–65 mm) Over 2-5/8"ID through 6"IPS (65 mm–168 mm)	Nom 3/8" (10 mm) Nom 1/2" (13 mm)	Nom 3/8" (10 mm) Nom 1/2" (13 mm)	Nom 1/2" (13 mm) Nom 1/2" (13 mm)	Nom 3/4" (19 mm) Nom 3/4" (19 mm)
BASED ON SEVERE DESIGN CONDITIONS*** 3/8"ID through 1-5/8"ID (10 mm–40 mm) Over 1-5/8"ID through 3-5/8"ID (40 mm–90 mm) Over 3-5/8"ID through 6"IPS (90 mm–168 mm)	Nom 3/4" (19 mm) Nom 3/4" (19 mm) Nom 3/4" (19 mm)	Nom 1" (25 mm) Nom 1" (25 mm) Nom 1" (25 mm)	Nom 1-1/2" (38 mm) Nom 1-1/2" (38 mm) Nom 1-1/2" (38 mm)	Nom 1-1/2" (38 mm) Nom 1-3/4" (44 mm) Nom 2" (50 mm)

*BASED ON **NORMAL** DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under **normal** design conditions, a maximum severity of **85°F (29°C) and 70% RH**. Armacell research and field experience indicate that indoor conditions anywhere in the United States seldom exceed this degree of severity.

BASED ON **MILD DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under **mild** design conditions, a maximum severity of **80°F (27°C) and 50% RH**. Typical of these conditions are most air-conditioned spaces and arid climates.

***BASED ON **SEVERE** DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under **severe** design conditions, a maximum severity of **90°F (32°C) and 80% RH**. Typical of these conditions are indoor areas in which excessive moisture is introduced, poorly ventilated areas, or in areas open to humid, outdoor conditions.

Armaflex Insulation Thickness Recommendations: Ducts, Tanks, and Vessels For Controlling Outer Insulation Surface Condensation

Ambient Conditions	Ducts—Tanks—Vessels—Equipment Metal Surface Temperature		
	50°F (10°C)	35°F (2°C)	0°F (-18°C)
BASED ON NORMAL DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under normal design conditions, a maximum severity of 85°F (29°C) and 70% RH . Armacell research and field experience indicate that indoor conditions anywhere in the United States seldom exceed this degree of severity.	Nom 3/8" (10 mm)	Nom 3/4" (19 mm)	Nom 1-1/2" (38 mm)
BASED ON MILD DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under mild design conditions, a maximum severity of 80°F (27°C) and 50% RH . Typical of these conditions are most air-conditioned spaces and arid climates.	Nom 1/8" (3 mm)	Nom 1/4" (6 mm)	Nom 1/2" (13 mm)
BASED ON SEVERE DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under severe design conditions, a maximum severity of 90°F (32°C) and 80% RH . Typical of these conditions are indoor areas in which excessive moisture is introduced, poorly ventilated areas, or in areas open to humid, outdoor conditions.	Nom 1" (25 mm)	Nom 1-1/2" (38 mm)	Nom 2" (50 mm)

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