



ENGINEERED FOR
DURABILITY

ArmaFlex[®] Shield

Continuous coil pipe insulation with durable protective jacket for outdoor applications.

- // Protect against thermal losses, condensation and moisture ingress
- // Durable outer jacket resists damage due to sunlight, line trimmers, and other outdoor hazards
- // Meets IECC code requirements for outdoor insulation
- // Meets code requirements for installation in plenums
- // Comes in continuous coils for fast installation with fewer seams

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 **armacell**[®]
ArmaFlex[®]

TECHNICAL DATA - ARMAFLEX SHIELD

Brief description	ArmaFlex Shield consists of an ArmaFlex insulation core with a flexible, polymeric protective covering designed to prevent damage to the insulation from sunlight, installation and physical abuse (such as line trimmers used for lawn maintenance).		
Applications	For line set, heating, ventilation, air-conditioning (HVAC) systems, mechanical and plumbing lines in commercial and residential buildings.		
Assembly	ArmaFlex Shield meets the requirements of the International Energy Conservation Code (IECC) for the protection of insulation installed outdoors. It can be slit easily with a sharp, non-serrated knife and installed over a pipe. Longitudinal and butt joints should be sealed with ArmaFlex 520 adhesive.		
Property	Value/Assessment		Standard/Test method
Temperature range	Max. service temperature	+82 °C (+220 °F)	
	Min. service temperature	-128 °C (-297 °F) ¹	
Thermal conductivity	θ _m	24 °C (75 °F)	ASTM C177 or C518
	λ ≤	0.036 (0.25) W/(m·K) [Btu · in/h · ft ² · °F]	
Water vapour diffusion resistance			
Water vapour permeability	≤ 0.435 x 10 ⁻¹³ kg/(m·s·Pa) (0.03 Perm-in)		ASTM E 96, Procedure A
Fire performance & approvals			
Flame spread and smoke developed index	25/50 rated, through 1" wall thickness		ASTM E84
Other technical features			
Water absorption, % by volume	0.2%		ASTM C1763
Ozone resistance	Good		
UV resistance	Good, no deterioration ²		
Specification compliance	2015 IECC: Section R403.4.1 2015 IECC: Section C403.2.10 Plenum rated according to the International Mechanical Code (IMC)		ASTM C534, 2012 IECC: Section R403.3.1, 2012 IECC: Section C403.2.8

¹ At -73°C (-40 °F), the insulation becomes hard and brittle. This hardening characteristic does not affect thermal efficiency or water vapour permeability.

² ArmaFlex Shield meets the UV resistance requirements of ASTM C1775 which describes requirements for insulation protective jacketing used outdoors.

Tubes

Item	13mm (1/2")				19mm (3/4")				Insulation inner diameter		Cu pipe outer diameter	
	Carton content		Gross weight / carton		Item	Carton content		Gross weight / carton		[mm] ³	[inch]	[inch]
	[m] ³	[lin.ft.]	[kg] ³	[lbs]		[m]	[lin.ft.]	[kg]	[lbs]			
IPPCT01412CL	47.2	155	4.24	9.35						6	1/8	1/4
IPPCT03812CL	35.1	115	3.97	8.75	IPPCT03834CL	24.4	80	4.22	9.31	10	1/4	3/8
IPPCT01212CL	32.0	105	4.66	10.27	IPPCT01234CL	21.3	70	4.67	10.29	12	3/8	1/2
IPPCT05812CL	29.0	95	4.28	9.44	IPPCT05834CL	18.3	60	4.23	9.33	15	1/2	5/8
IPPCT03412CL	25.9	85	3.69	8.14	IPPCT03434CL	12.2	40	3.83	8.44	20	5/8	3/4
IPPCT07812CL	22.9	75	3.76	8.28						22	3/4	7/8
IPPCT11812CL	16.8	55	4.62	10.19						28	1	1-1/8

³ All metric dimensions are approximate and calculated from the imperial scale.

All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. Armacell takes every precaution to ensure the accuracy of the data provided in this document and all statements, technical information and recommendations contained within are believed to be correct at the time of publication. By ordering/receiving product you accept the **Armacell General Terms and Conditions of Sale** applicable in the region. Please request a copy if you have not received these.

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ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,100 employees and 25 production plants in 17 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.



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