



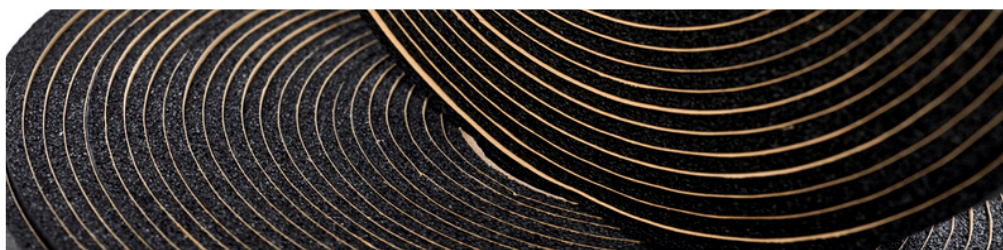
## ENERGY SAVING SOLUTIONS

# AP/ArmaFlex FS

The original fibre-free, closed-cell thermal and acoustical duct insulation, with a labour-saving pressure sensitive system, engineered to safeguard IAQ, attenuate HVAC noise and reduce energy waste. AP/ArmaFlex FS SA is PVC free.

- // Attenuates airborne noise to reduce background noise from HVAC systems
- // Meets ASHRAE 90.1, ASHRAE Standard 189.1, IECC 2012 and California Title 24 for increased energy efficiency
- // Designed to last the useful life of mechanical equipment
- // Pressure sensitive adhesive system saves installation labour costs

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 **armacell**<sup>®</sup>  
ArmaFlex<sup>®</sup>

TECHNICAL DATA - AP/ARMAFLEX FS

Brief description		Black flexible closed-cell elastomeric thermal and acoustical duct insulation in sheet and roll form with a self-adhering backing			
Property		Value / Assessment			Standard / Test method
Temperature range					
Service temperature¹	Min. °C	Min. °F	Max. °C	Max. °F	
	-183	-297	149	300	
Thermal conductivity					
Declared thermal conductivity	Øm	24 °C [75 °F]		32 °C [90 °F]	ASTM C177, ASTM C518
	λd ≤ [W/(m·K)]	0.0353		0.0366	
	λd ≤ [Btu-in/(h-ft²-°F)]	0.245		0.254	
	Range	AP/ArmaFlex SA through 1" duct liner and wrap			
Declared thermal conductivity	Øm	24 °C [75 °F]		32 °C [90 °F]	ASTM C177, ASTM C518
	λd ≤ [W/(m·K)]	0.040		0.040	
	λd ≤ [Btu-in/(h-ft²-°F)]	0.28		0.28	
	Range	AP/ArmaFlex SA through 1-1/2" and 2" duct liner and wrap			
Fire Performance and Approvals					
Surface burning characteristics	Flame spread and smoke developed index: 25/50 rated				ASTM E84, UL CAN ULC S102 through 1" thickness
Resistance to water					
Water absorption	0.2%				ASTM C1763, ASTM C209
Acoustic performance					
Sound absorption average	Thickness (mm)	25	38	50	
	Thickness (inches)	1	1.5	2	
	SAA	0.38	0.49	0.51	
Noise reduction coefficient	Thickness (mm)	25	38	50	
	Thickness (inches)	1	1.5	2	
	NRC	0.4	0.50	0.50	
Octave band sound absorption coefficient, α	Thickness	1" [25mm]	1/2" [13mm]	2" [50mm]	
	125 Hz	0.01	0.07	0.14	
	250 Hz	0.13	0.26	0.62	
	500 Hz	0.39	0.92	0.44	
	1000 Hz	0.69	0.31	0.43	
	2000 Hz	0.29	0.49	0.51	
	4000 Hz	0.226	0.53	0.45	
Sound transmission class, STC	13mm thickness (nominal 1/2"): 25 25mm thickness (nominal 1"): 25				
Weather and UV resistance					
Outdoor use	Painting with WB Finish or other protective jacketing is required to prevent damage to the insulation in exterior applications and to comply with the insulation protection sections of the International Energy Conservation Code (IECC) and ASHRAE 90.1.				

Property	Value / Assessment	Standard / Test method
Health and environment		
Mould growth	Passed	UL 181, ASTM G21, ASTM C1338
Other technical features		
Erosion resistance	Does not break away, flake off or show evidence or delamination at velocities of 10,000 ft/min	ASTM C1071

<sup>1</sup> At temperatures below -20°F (-29°C), elastomeric insulation starts to become less flexible. However, this does not affect the performance of AP/ArmaFlex in terms of thermal efficiency and resistance to water vapour permeability.

Roll - standard. 25/50 rated

Item	Insulation thickness [mm]	Insulation thickness [inch]	R-value	Width [mm]	Width [inch]	Length [m]	Length [ft]	UCC	UPC	Primary content weight [lbs]
IPAPR11240FS	38	1.5	6	1.22	48	7.62	25	10803014128718	1,0803E+13	66.000
IPAPR20040FS	50	2	8	1.22	48	5.49	18	10803014129807	1,0803E+13	70.000
Other information										
Remarks				Loading factor for sheets = .67 / 144 cartons per 53' trailer						

Sheet - self-adhesive

Item	Insulation thickness [mm]	Insulation thickness [inch]	R-value	Width [m]	Width [inch]	Length [inch]	Length [m]	Length [ft]	UCC	UPC	Primary content weight [kg]
IPSAR11240FS	38	1.5	6	1.22	48		7.6	25	10803014137000	1,0803E+13	36.920
IPSAR20040FS	51	2	8	1.22	48		5.5	18	10803014136836	1,0803E+13	
IPSAS11243FS	38	1.5	6	1.22	48	36	0.9		10803014112021	1,0803E+13	1.000
IPSAS20043FS	50	2	8	1.22	48	36	0.91		10803014132272	1,0803E+13	13.060

Sheet - self-adhesive

Item	Primary content weight [lbs]
IPSAR11240FS	81.400
IPSAR20040FS	75.100
IPSAS11243FS	22.820
IPSAS20043FS	28.800

Sheet - pre-cut. 25/50 rated

Item	Insulation thickness [mm]	Insulation thickness [inch]	R-value	Width [m]	Width [inch]	Length [inch]	Length [m]	UCC	UPC	Primary content weight [lbs]
IPAPS11243FS	38	1.5	6	1.22	48	36	0.91	10803014128725	1,0803E+13	30.000
IPAPS20043FS	50	2	8	1.22	48	36	0.91	10803014129814	1,0803E+13	35.000
Other information										
Remarks				Loading factor for sheets = .31 / 312 cartons per 53' trailer						

Adhesives and Cleaners

Item	Description	Primary content [pieces]
IPAAD520002	48 tins of 1/2 pint brush-top ArmaFlex 520 adhesive in a carton.	48 Carton
IPAAD520003	24 tins of 1 pint ArmaFlex 520 adhesive in a carton	24 Carton
IPAAD520004	24 tins of 1 pint ArmaFlex 520 adhesive with a brush-top in a carton	24 Carton
IPAAD520002B	12 tins of 8 oz ArmaFlex 520 black adhesive with brush top in a carton	
IPSPRAYADH27	Adhesive spray	1 Carton

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## ABOUT ARMACELL

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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 more than 3200 employees and 27 production plants in 19 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.

For more information, please visit:  
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