



THE MAKERS OF  
**Armaflex**  
**Tubolit**  
**Oka - Products**



**Class 0 Armaflex®**

**EXPERIENCE COUNTS!**

Specializing in more than just products –  
we put the competitive advantage at your fingertips.



# Class O Armaflex®



Armaflex is a flexible, closed cell, elastomeric, nitrile rubber, insulation. It is a highly efficient method of insulating hot and cold water services, chilled water lines, heating systems, air conditioning ductwork and refrigerated pipework for Frost Protection, Energy Conservation and Condensation Control. Armaflex is dust free, fibre free and CFC free with an ODP of zero which means an environmentally friendly product.

## Class O Armaflex

Armaflex is a highly flexible elastomeric material which is quick and easy to install and available in both tube and sheet form. It has a closed cell structure which has a built in vapour barrier with a high resistance to water vapour transmission enabling the insulation material to maintain a higher level of energy conservation efficiency.

In tube form, installation of Class O Armaflex can be carried out as the job progresses by sleeving onto pipes or if insulating an existing installation pre-slit material is available, which can be snapped on and sealed using an Armaflex adhesive. Class O Armaflex tube is available in 2 metre lengths and as Armaflex AC – a continuous coil in a box, meaning less cutting, less waste.

In sheet form, Class O Armaflex is the ideal choice for insulating tanks,

ductwork, large pipes or irregular shapes. Flat sheets are 2 metres long x 0.5 metres wide or alternatively 1 metre wide continuous rolls are available for economic material usage. All sheet material is available with or without a self-adhesive backing.

Class O Armaflex has an excellent fire safety performance achieving BS476 part 6 1989 for low fire propagation, producing minimal contribution to the overall heat release, and BS476 part 7 1987 for zero surface spread of flame.

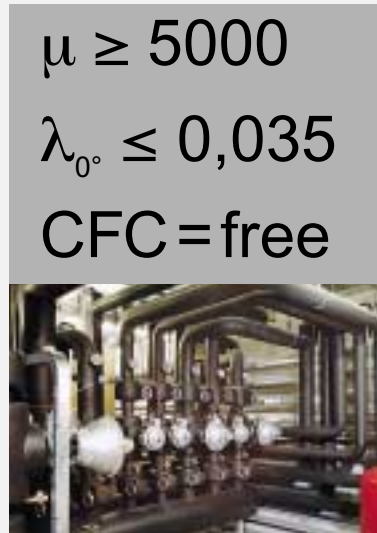
Class O Armaflex pipe supports are recommended for use where thermal bridging may occur. This is particularly important on refrigeration and chilled water pipes where there is a possibility of condensation taking place, particularly between the pipe and it's fixing. In heating installations the use of pipe supports will generally improve energy conservation.

# Energy Efficiency – Condensation Control

## We're investing

### in the future

Armacell's research and development has always received substantial investment and the research not only promotes good  $\mu$  and  $\lambda$  values, but we are continually developing new improved products. Quality assurance and health & safety issues are becoming increasingly more important. We develop environmentally-friendly product processing, test various material compositions and research options for improved recycling. These are investments which both support the preservation of our environment and form the basis for ecologically-valuable products.



Armacell are committed to stringent quality tests and continuous research & development

## Technical competence and ecological value

The most important properties of low temperature insulation are; the prevention of the build up of condensation and; the minimising of energy loss during the entire lifetime of use. In the past, the increase of thermal conductivity in the course of years of operation due to moisture absorption had not been taken into consideration when selecting and specifying low temperature insulation. Consequently, not only was the energy loss higher, but the surface temperature also lowered. If this temperature fell below dew point, condensation formed. Prevention of the formation of condensation is therefore determined by two factors. Low  $\lambda$  value and high  $\mu$  value. Class O Armaflex has a low thermal conductivity  $\lambda$  value of 0.035 at 0°C and a high  $\mu$  value of 5000 minimising long term heat gain and reducing energy costs.

...asked for by name

### The competitive advantages of specifying Class O Armaflex

- Lightweight and flexible means easy and speedy installation with low maintenance, resulting in time and cost savings
- Wide range of tube and sheet sizes available
- The low thermal conductivity,  $\lambda 0.035 \text{ W/(m.k)}$  at  $0^\circ\text{C}$ , and good acoustic performance provide double benefits with one insulation system
- Closed cell structure provides a built-in vapour barrier
- A high,  $\mu 5000$ , resistance to water vapour transmission and water ingress, gives long term insulation efficiency for condensation control
- Low Toxicity Index for added safety assurance
- Class O fire category means low fire propagation index, producing minimal contribution to overall heat release, and a zero surface spread of flame for a high degree of fire protection and safety
- Excellent resistance to the effects of ozone, oil, chemicals, extreme weather conditions and wear & tear
- Dust, fibre and CFC free with an Ozone Depletion Potential of zero
- BS EN ISO 9002 and 14001 approval confirms continuity of quality



Fire performance



Condensation control



Energy conservation

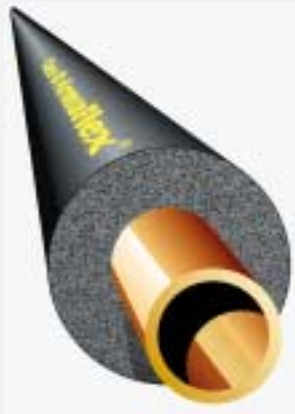


Frost protection

Armaflex with a high moisture resistance factor of  $\mu 5000$  for increased resistance to water vapour transmission – minimising long term heat gain over the lifetime of the insulation and reducing overall energy costs



## – Frost Protection – Fire Resistance



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In **sheet** form, **Class O Armaflex** is the ideal choice for insulating tanks, ductwork, large pipes or irregular shapes. Flat sheets are 2 metres long x 0.5 metres wide or alternatively 1 metre wide continuous rolls are available for economic material usage. All sheet material is available with or without a self-adhesive backing.



### Accessories

#### Armaflex Adhesives

For use with Armaflex, Pipe Supports and Armaload to provide a seal with a performance at least equal to the materials. Available as **Armaflex Standard Adhesive, Armaflex 520** – a low viscosity formulation – and **Armaflex Nonflam** for use in environmentally sensitive areas.

#### Armaflex Gluemaster

Suitable for use with all adhesives and significantly increases the speed of installation. Replacement brushes are available.

#### Armaflex Cleaner

Use to clean Armaflex insulation and other surfaces, as necessary, prior to the application of adhesive or paint, also to clean Armaflex adhesive from brushes and other equipment.

#### Armafinish FR Paint

Protective water-based paint for use on Armaflex installed outdoors. Provides a tough flexible film which is resistant to UV radiation, ozone and many aggressive chemicals.

#### Armaflex Slitting Knife

A useful tool for slitting Armaflex tube in one quick, simple operation. Replacement blades are available.









#### Armaload

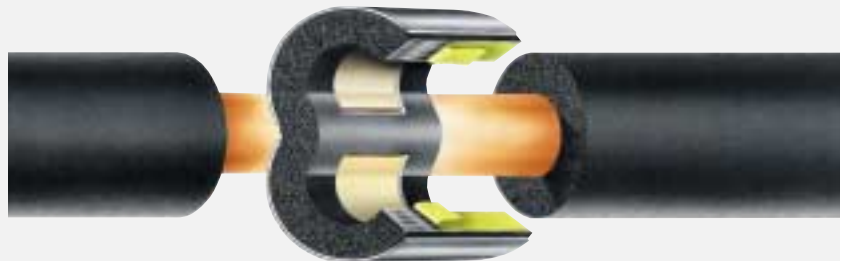
Flexible high density insulation with good load bearing properties, for use on unistrut pipe supports to avoid point loading.

#### Armaflex Insulating Tape

Self adhesive Class O tape which may be used for insulating difficult shapes or areas not easily accessible, having a minimum thickness of 3mm.

### Product Range:

Tube	
Continuous Tube	
Pipe Support	
Sheet	
Sheet, self-adhesive	
Continuous Sheet	
Continuous Sheet, self-adhesive	
Tape, self-adhesive	



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is a possibility of condensation taking place, particularly between the pipe and it's fixing. In heating installations the use of pipe supports will generally improve energy conservation.

Class O Armaflex Technical Data	
<b>Temperature range</b>	Minimum line temperature -50°C* Maximum line temperature +105°C Flat surfaces and tape +85°C
<b>Thermal Conductivity</b> (mean temperature) BS874 Part 2 1986	0 +20 +40 °C 0.035 0.037 0.039 W/(m.K)
<b>Water vapour permeability</b> Moisture Resistance factor BS EN ISO 9346: 1996 BS4370 Part 2 1973	μ>5,000 3.6 x 10 <sup>-14</sup> kg/(m.s.Pa) 0.13 μgm/(N.h)
<b>Water absorption</b> , by volume after 28 days	0.9% average, 1.5% maximum
† <b>Fire performance</b> , surface spread of flame, BS476 Part 7 1987	Class 1
† <b>Fire propagation</b> , BS476 Part 6 1989 Total Index of Performance (I) Sub index (i)	Less than 12 Less than 6
<b>Noise reduction</b>	Acoustic level to 30 dB(A)
<b>Resistance to building materials</b>	Very good
<b>Resistance to chemicals</b>	Consult product test list
<b>Dimensions</b>	Standard tube 2m lengths Flat sheet 2m x 0.5m Continuous sheet 1m wide
Outdoor applications should be painted with Armafinish FR paint to the recommended thickness. Two or more coats may be required.	

Armaflex is ideal for all thermal and acoustic insulation required on:

- Process work
- Hot and cold water services
- Chilled water lines
- Heating systems
- Air conditioning ductwork
- Refrigeration pipework and ancillary equipment

\* If lower temperatures, down to -200°C, are involved please consult our Technical Dept. Tel: 0161 287 7100 or Fax: 0161 633 2685.

† This meets the 1991 Building Regulations (England and Wales) and the Building Standards (Scotland) Regulations 1990 for the Class O fire category.

All statements and technical information are based on results obtained under typical conditions. It is the responsibility of the recipient to verify with us that the information is appropriate for the specific use intended by the recipient.

### Tube Size Range

Copper Tube			Iron & Steel Pipe		Minimum ID Armaflex	D Nominal Thickness 6 mm	F Nominal Thickness 9 mm	H Nominal Thickness 13 mm	M Nominal Thickness 19 mm	R Nominal Thickness 25 mm	T Nominal Thickness 32 mm
NB in	Nom OD in	Nom OD mm	NB in	Nom OD mm	Min ID mm	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
	1/4	6			6.5	06006†	09006†	13006†	-	-	-
	3/8	10			10.5	06010†	09010	13010†	19010†	-	-
3/8	1/2	12			12.5	06012†	09012†	13012†	19012†	25012†	-
1/2	5/8	15			16.0	06015	09015	13015	19015	25015	32015
5/8	3/4				20.0	06020	09020†	13020†	19020†	25020	32020*
3/4	7/8	22	1/2	21.3	22.5	06022	09022	13022	19022	25022	32022
1	1 1/8	28	3/4	26.9	29.0	06028	09028	13028	19028	25028	32028
1 1/4	1 3/8	35	1	33.7	35.5		09035	13035	19035	25035	32035*
1 1/2	1 5/8	42	1 1/4	42.4	43.5		09042	13042	19042	25042	32042*
			1 1/2	48.3	49.0		09048	13048	19048	25048	32048*
2	2 1/8	54			55.0		09054	13054	19054	25054	32054*
			2	60.3	61.0		09060†	13060	19060	25060	32060*
2 1/2	2 5/8	67			68.0			13067	19067†	25067	32067*
2 3/16	3	76.1	2 1/2	76.1	77.0			13076	19076	25076	32076*
3	3 1/8	80			81.0			13080*	19080	25080*	-
			3	88.9	90.0			13089*	19089	25089*	32089*
3 1/2	3 2/5	93			94.0			13093*	19093*	-	-
			3 1/2	101.6	107.5			13102*	19102*	-	-
4	4 1/4	108			109.0			13108*	19108*	25108*	-
			4	114.3	115.5			13114*	19114*	25114*	32114*
			5	139.7	142.0					25140*	-

Sheet & Self-Adhesive Sheet	
Nominal Thickness mm	Sheet Size mm
3	2,000 x 500
6	2,000 x 500
13	2,000 x 500
19	2,000 x 500
25	2,000 x 500
32	2,000 x 500
Continuous Sheet	
6	1,000 x 15,000
9	1,000 x 10,000
13	1,000 x 8,000
19	1,000 x 6,000
25	1,000 x 4,000
Armaflex Tape self-adhesive	
Width: 50 mm	
Thickness: 3 mm	
Length: 15 m	

† Only stocked in unslit tube. Delivery for slit tube quoted on request.

\* Delivery quoted on request.