

Class O Armaflex

Product Information

Product Description

Class O Armaflex is a flexible, closed cell, CFC-free (ozone depletion potential of zero), elastomeric nitrile rubber pipe insulation. It is black in colour and is manufactured in pre-formed pipe sections and sheets.

As part of the Armstrong product development programme, Class O Armaflex has an improved (lower) thermal conductivity and superior resistance to water vapour transmission. These properties make Class O Armaflex particularly suitable for condensation control on chilled water and refrigeration systems.

When evaluated using standard fire tests the material achieves a Class O rating as defined by the Building Regulations Approved Document B Appendix A12. These tests indicate that in the critical early stages of a sustained fire the use of Class O Armaflex will make only a minimal contribution to the overall heat release and spread of flame.

Being flexible the material is easy to install, it is not fibrous and creates no dust during installation or use.

The manufacturing process conforms to the quality standards required by BS EN ISO 9002: 1994.

Field of Application

Class O Armaflex is particularly suitable for buildings with high occupancy levels where a very high standard of fire performance is required, e.g. hospitals, schools, hotels, supermarkets.

Class O Armaflex may be used for pipes, valves, ducts or vessels since it is flexible and easily fabricated. It is particularly suitable for the thermal insulation of complex shapes.

Class O Armaflex is used for condensation control, energy conservation and frost protection, in the temperature range -40 °C to +105 °C

When used to insulate flat surfaces where the Class O Armaflex insulation is adhered directly on to the surface, the operating temperature should not exceed 85 °C.

The material can be supplied in a limited range of sizes in coil form in lengths up to 50 metres for special applications. Sheet with a self adhesive backing is also available.

When Class O Armaflex is used outdoors or exposed to UV radiation and ozone attack it should be protected using Armafinish FR paint. Where Armafinish FR paint is used the overall fire rating of Class O is maintained. For internal use Class O Armaflex does not require any additional protection.

Class O Armaflex

Technical Data

Temperature Range	Minimum line temperature	-40 °C *
	Maximum line temperature	+105 °C
	Flat surfaces and tape	+85 °C
Thermal Conductivity BS 874 Part 2 1986	Mean temperature	0 +20 +40 °C
	Thermal conductivity	0.035 0.037 0.039 W/(m.K)
Water Vapour Permeability BS 4370 Part 2 1973	Moisture resistance factor	$\mu > 5,000$
	(BS EN ISO 9346:1996)	$3.6 \times 10^{-14} \text{ kg / (m.s.Pa)}$
		0.13 $\mu\text{gm / Nh}$
Water Absorption	By volume after 28 days total	0.9 % average
	immersion	1.5 % maximum
Fire Performance BS 476 Part 7 :1987	Surface spread of flame	Class 1
Fire Propagation BS 476 Part 6 :1989	Total index of performance I	Less than 12
	Sub index i_1	Less than 6
Behaviour in fire	Physical performance	Does not generate flaming droplets
Noise reduction		See Section C1 pages 10 – 13
Resistance	Building materials	Very good
	Chemicals	Consult product test list see section C1 page 16 – 17
Dimensions	Standard tube	2 m lengths
	Flat sheet	2 x 0.5 m
	Continuous sheet	1 m wide
Outdoor applications	Class O Armaflex should be protected with Armafinish FR paint to the recommended thickness. Two or more coats will be required.	

* If lower temperatures are involved please consult our Customer Services Department
Tel 0161 287 7100 Fax 0161 633 2685.

Class O Armaflex

SAFETY DATA SHEET

1. Identification of Product and Supplier

Product name: Class O Armaflex.

Description: Flexible thermal insulation material.

Supplier: Armstrong Insulation Products, Mars Street, Oldham, Lancs. OL9 6LY.

Telephone: 0161 287 7100

Facsimile: 0161 633 2685.

2. Composition/information on ingredients

Based on synthetic rubber with additives for fire performance, flexibility and UV stabilisation.

3. Hazards Identification

None

4. First Aid Measure

Ingestion: If swallowed, DO NOT induce vomiting. In small quantities there should be no adverse effects. If large quantities have been swallowed observe patients condition for up to 48 hours. Seek medical attention in the unlikely event that the patient is not well.

Inhalation: Under normal circumstances any dust created when the material is cut would not be airborne.

Eye contact: See above. If any dust particles lodge in the eye seek medical attention for their removal.

Skin contact: Not harmful.



Class O Armaflex

SAFETY DATA SHEET

5. Fire Hazards and Fire Fighting Measures

Hazards: Material is stable under normal conditions. In the event of a prolonged fire, as with all organic materials, there will be carbon dioxide/carbon monoxide and water evolved together with small quantities of other gases, dependent upon the heat of the fire.

Extinguishing media: Water spray or dry powder.

6. Spillage and accidental release measures

Initial action: Non hazardous.

Clean-up procedure: Solid non hazardous material.

Disposal: Product may be disposed of as normal industrial waste.

7. Handling and Storage

Handling conditions: No special precautions required.

Storage conditions: Keep dry and not exposed to direct sunlight.

8. Exposure controls/personal protective equipment

Eye shield may be required if material is being cut in areas of high air movement.

9. Physical characteristics

Form: Flexible tube or sheet. Foamed with closed cell structure.

Auto-ignition temperature: Above 250 °C.

Volatile organic content: Nil.



Class O Armaflex

SAFETY DATA SHEET

Technical Information

10. Stability and Reactivity

Avoid contact with oxidising agents and strong acids, can react violently.

11. Toxicological Information

Inhalation: See under heading 4 – First Aid Measures.

Eye contact: See under heading 4 – First Aid Measures.

Skin contact: Not harmful.

12. Long term hazards

Non identified.

13. Ecological Information

Degrades slowly in the presence of sunlight. Does not evolve gases which will damage the ozone layer, add to global warming, or contribute to ground level ozone pollution.

14. Disposal Considerations

Product may be disposed of as normal industrial waste.

15. Transport Information

No special precautions required.

16. Regulatory Information

None.

17. Other Information

Information on Armstrong Safety Data Sheets is drawn from a variety of sources, including raw materials suppliers data, and other published sources. Occupational Exposure Limits, where applicable, are taken from HSE Guidance Note no. EH40/00.



Armaflex Insulating Tape

Product Information

Product Description

Armaflex Insulating Tape is a CFC free (ozone depletion potential of zero), self-adhesive tape which is ideal for insulating short pipe runs, valves, etc. and for protecting expensive equipment from damage. It is quickly and easily applied by peeling off the backing paper and pressing the tape firmly into place.

Armaflex self-adhesive insulating tape is available at 3 mm thickness.

Armaflex Insulating Tape has a 100% solids adhesive backing for increased ease of installation and improved health and safety for operator comfort. The self-adhesive backing is designed to provide the following benefits:-

- High initial adhesion
- Resistance to high temperature
- Non-ageing characteristics
- Performance at high humidity
- High peel strength and good resistance to shear

The manufacturing process conforms to the quality standards required by BS EN ISO 9002 : 1994.

Field of Application

Armaflex self-adhesive Insulating Tape will reduce heat loss and heat gain and help to overcome condensation, noise and vibration problems. It is particularly convenient for pipes, valves and T-joints located in hard to get at areas.

The cushioning effect of Armaflex Insulating Tape will help to prevent damage to expensive equipment like baths, basins, shower trays and mirrors. It provides a fast simple and cost effective method of protection.

Armaflex self-adhesive tape will bond satisfactorily to all clean metal surfaces and to other high – energy surfaces such as polycarbonate, u-PVC, etc.

Low – energy surfaces such as weathered paint coatings, powdery concrete or similar will generally not be compatible with pressure-sensitive adhesives.

At low temperatures the initial adhesion may not appear to be good, but generally it is sufficient to give an immediate bond. The strength of the bond will increase over time to reach maximum after about 24 hours.

Note: Please refer to Section C2 pages 1 – 3 for installation recommendations.

Armaflex Insulating Tape

Product Information

Technical Data

Temperature Range	-40 °C to + 85 °C
Thermal Conductivity	0.035 W / (m.K) at 0 °C
Fire Rating (Tape only)	
Class O Armaflex	Meets Class O, Building Regulations
Water Vapour Permeability	
Class O Armaflex	$\mu > 5,000$
Resistance to oil and grease	GOOD
Adhesive Base	100% solids modified acrylic resins
Reinforcement	Regular open mesh glass scrim
Release backing	White polyethylene foil or yellow Kraft release-coated paper
Application temperature	+10 °C to +35 °C (Preferred about +18 °C)
Storage	Between 0 °C and +35 °C at normal air humidity (50-70% relative humidity)
Shelf-life	One year
Dimensions	
Thickness	3 mm (Minimum)
Width	50 mm
Length	15 metres