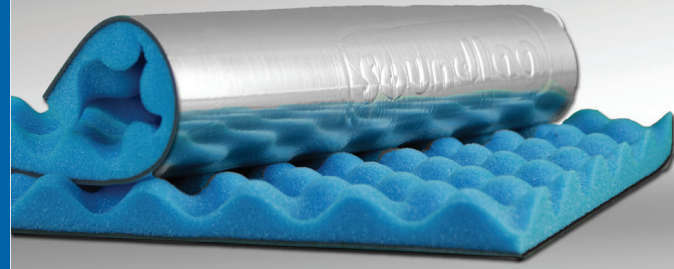# Pyrotek®

SOUNDLAG

The Installation Guide provides recommendations to maximise the service life in various applications. Soundlag pipe lagging gives the dual benefits of a noise barrier and a noise absorber.

WORKING HEALTH AND SAFETY

- Gloves, protective goggles and any other appropriate safety equipment based on local health & safety requirements and safe work practice must be worn by applicator.

DESCRIPTION

Soundlag is supplied in varying compositions with barrier weights of 3 to 8 kg/m² and the decoupling layer with a choice of foam, convoluted (4525C) or plain (4512), polyester or fibreglass with thicknesses from 6 mm to 50 mm.
Please refer to the Technical Data Sheet Soundlag 411IP

Soundlag is typically used to wrap noisy pipes, waste pipes, ducts, valves, and fan housings to prevent breakout noise from pipe walls or ducts.

The following is intended to serve as a general guide for installing Pyrotek pipe and duct lagging material around pipes and ducts.

PREPARATION

- Ensure pipe work pressure testing is complete and the pipe work surface is clean and dry before installing product.
- If the product has been stored on site for a period of time, ensure the material is clean, dry and free from oil and dirt or rips and tears.

ESSENTIALS FOR EFFECTIVE LAGGING

- Coverage of pipe by the lagging material must be continuous.
- There should be no gaps at joints or edges. The smallest of gaps at any joint will result in performance loss. (Refer section 'Treatment of Joints' further in this document)
- A tight seal around all joints and edges is critical for maximum performance. Use Pyrotek's pressure sensitive reinforced aluminium insulation tape - 'Tape ALR ' or approved equal.
- Attention to detail and good workmanship in cutting, applying and fixing the product to the pipe is essential.

Soundlag is a high-performance composite acoustic pipe lagging product consisting of a reinforced aluminium foil faced, mass-loaded flexible vinyl noise barrier bonded to a decoupling layer.

applications

- Hydraulic and waste pipe lagging in all locations
- Air-conditioning duct lagging and shrouds
- Compressor wraps
- Spa motor wraps

HOW TO MEASURE AND CUT MATERIAL

For Straight Pipe Sections

Measure the length (L) and outside diameter (OD) of the pipe requiring lagging.

Apply the following formula to calculate and cut the required wrapping width (W) of Soundlag. The formula allows for a 5 (five) percent overlap:

W = π x (OD + (2 x T)) x P

OD = outside diameter of the pipe

P = Percentage overlap (1.03 to 1.1)

π = 3.14 (pi)

T = Total thickness of acoustic insulation (allow 20% compression on thickness when using convoluted foam or fibreglass decoupling layers.)

Mark the calculated width (W) along the length of the roll and cut material with a retractable knife or scissors (as shown in figures MR1 and CR1).

Soundlag is easy to cut to size with a retractable knife or scissors, minimising wastage.

Always cut from the foil faced barrier side of the material.

ABOUT 'TAPE ALR' - REINFORCED ALUMINIUM INSULATION JOINING TAPE:

Pyrotek can provide on request, 'Tape ALR' - a high quality self-adhesive insulation joining tape. This pressure-sensitive reinforced aluminium foil tape is designed to serve as a joining or covering tape for Pyrotek's 'Soundlag' and other foil-faced products.

HOW TO APPLY INSULATION JOINING TAPE (*see images 1 to 4***)**

1. Tape ALR is easy to tear by hand.
2. Remove the release liner backing
3. Position tape centrally over the sections to be joined and firmly press along the entire tape surface.
4. Wipe or rub with firm pressure across the tape with a cloth or blade to smooth out any air bubbles or buckles.
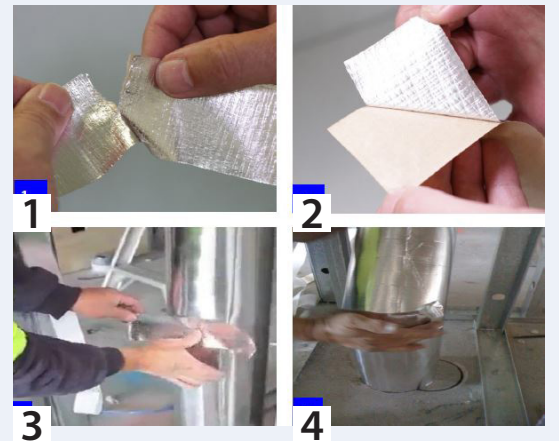
Do not over-stretch the tape when applying as this will create buckles and voids in the contact area.


MR1

CR1

1

2

3

4
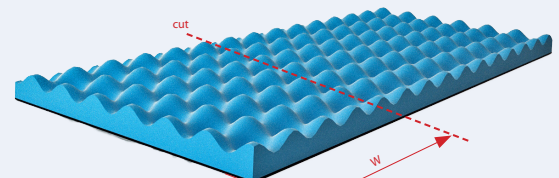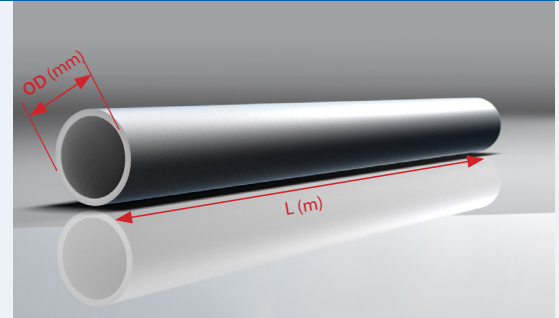
TREATMENT OF JOINTS ON STRAIGHT PIPE SECTIONS

- All joints along longitudinal pipe sections must be fitted with an overlap of adjoining material segments. Overlapped sections must then be taped and sealed with 'Tape ALR' or equal.

- A strip of 30 mm foam can be removed along one or both edges as required to provide for an overlap at joints. (See OVERLAPPING images)

- Images show insulation material segments with foam removed being overlapped at joints.

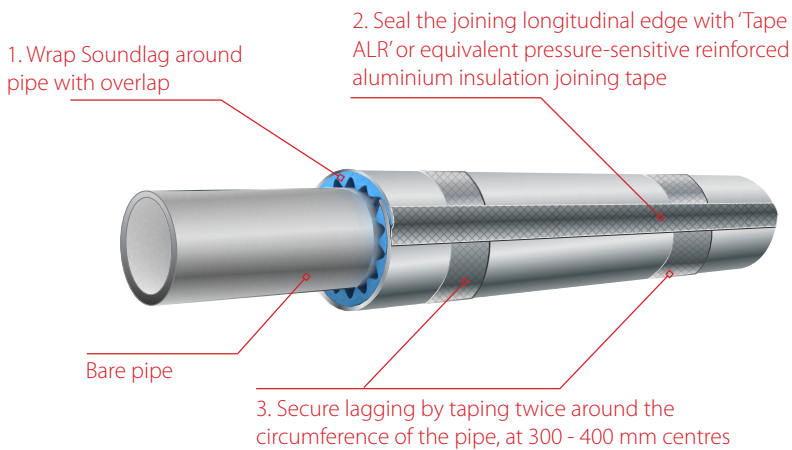- Joints overlapped with foam removal provide a smooth surface.

OVERLAPPING

Images (*left to right*) show the removal of foam *before* being overlapped at joints.

Joints overlapped without foam removal provide a smooth surface.
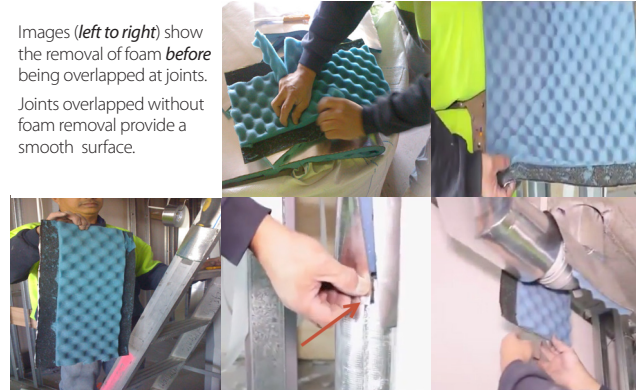
LAGGING A STRAIGHT PIPE SECTION

A diagrammatic representation of Soundlag lagged to a straight pipe section

1. Wrap Soundlag around pipe with overlap

2. Seal the joining longitudinal edge with 'Tape ALR' or equivalent pressure-sensitive reinforced aluminium insulation joining tape

Bare pipe

3. Secure lagging by taping twice around the circumference of the pipe, at 300 - 400 mm centres

TEST TO CHECK FOR A TIGHT SEAL OF JOINTS

Overlap

A correctly sealed joint will NOT allow the metal object to pass through the tape.

No Overlapping

An incorrect butt joint or no overlap will allow the metal object to pass through the tape and lagging.

Soundlag on a straight pipe section *in situ*

Wrap each segment with an overlap

Use small tape patches to secure the wrap and position firmly around the pipe

Tape along the longitudinal overlapped length

Continue lagging adjoining pipe area with the recommended overlap and joint treatment

Tape all joints and edges for a tight seal

The following table is an indicative measure of Soundlag 4525C (1.35 X 5 m roll) coverage on straight pipe sections.
The calculation includes an overlap as stated in the formula.

PRODUCT SPECIFICATIONS

Nominal Inside Pipe Diameter (mm)	Outside Pipe Diameter (mm)	Actual Cut Length -Wrapping Width- (mm)	Pieces Per Roll (1.35 x 5 m roll) Units	Coverage of Straight Pipe Section (Lineal metres)
32	36	260	19	25.5
40	43	280	17	23
50	56	320	15	20
65	69	360	13	17.5
80	83	405	12	16
100	110	500	10	13.5
150	160	650	7	9.5
225	250	930	5	7
300	316	1135	4	5
375	401	1400	3	4

NOTE: All information above only serves as a general guideline. Different applications can vary case-by-case. Please contact your local Pyrotek representative for more information.