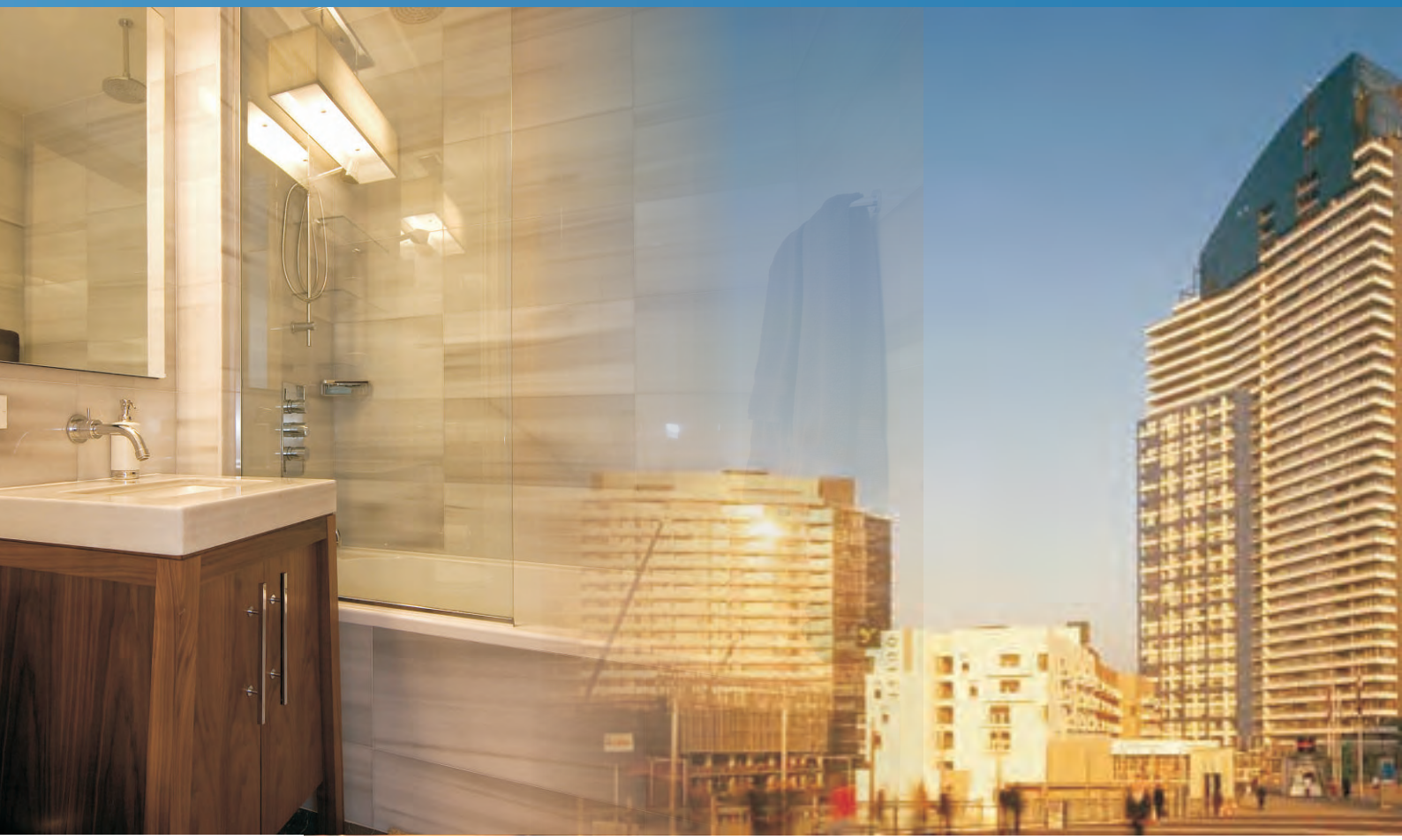
noise >

soundlag® - acoustic pipe lagging



Pyrotek noise control

soundlag® 4525C

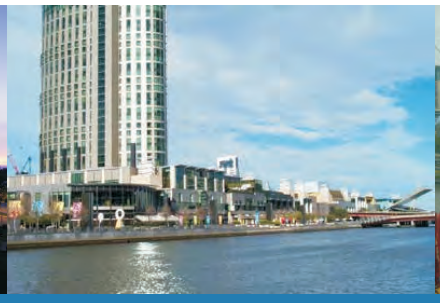
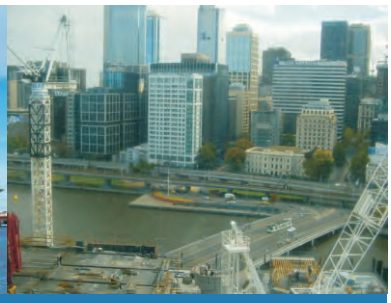
www.pyroteknc.com

> reduces pipe noise > easily installed > high performance
> quality assured & tested > highly flexible > cost effective

soundlag® 4525C

> introduction

The trend towards high-density living environments and lightweight building construction over the last decade has required an improvement in the control of noise from waste pipes and general plumbing. Soundlag 4525C, carrying a ten year warranty, is the choice for many leading acoustic consultants, architects and consulting engineers as its quality assured consistent performance guarantees quieter pipes.

> product introduction

Soundlag 4525C is a pipe wrap comprising of 5.0 kg/m² flexible loaded vinyl bonded to 25mm thick flexible convoluted foam. The function of the foam is to provide acoustic decoupling between the pipe's noise energy and the 5kg flexible loaded vinyl external wrap, resulting in superior performance. The external face of the vinyl is bonded to an aluminum foil providing a fire resistant covering.

> why use soundlag 4525C?

- Easiest pipelag product on the market to cut, wrap & install
- Most widely specified by leading acoustic & EMP (electrical, mechanical & plumbing) consultants
- Highly flexible, allowing it to conform to the smallest dia. Pipes & bends (has no memory)
- No odour & non irritant
- No solvents or adhesives used during manufacture
- Complies to building standard regulations for low VOC ommission
- Ten year warranty
- Available world wide

> fixing and cutting

Soundlag 4525C is easily cut with a knife or scissors to size, minimising wastage. Wrap soundlag 4525C around the pipe and then use high quality aluminium tape to join the product together. Pyrotek recommends an overlap at all joins to eliminate potential flanking noise.

Approximate pipe coverage per 5m roll

Nominal Inside Dia.	Outside Dia.	Actual Cut Length	Coverage/ 5m Roll
32	36	260	25.5
40	43	280	23
50	56	320	20
65	69	360	17.5
80	83	405	16
100	110	490	13.5
150	160	650	9.5
225	250	930	7
300	316	1135	5
375	401	1400	4

This is an indicative calculation based on a minimal overlap

> product solution

Soundlag 4525C has been developed as an easy to use acoustic treatment which reduces noise breakout from pipes.

The unique flexibility of the polymer-based noise barrier provides superior performance and allows even the smallest pipes to be lagged effectively.

It's independently tested in laboratory conditions and in situ to give proven consistent performance. Leading consultants specify Soundlag 4525C with confidence.

Low maintenance with a long service life, the aluminium foil facing provides a robust lifetime surface finish, ensuring protection from damage, and improves fire resistance.

Burj Khalifa Tower used lagging technology acquire by Pyrotek that is used in Soundlag 4525C

> system design considerations

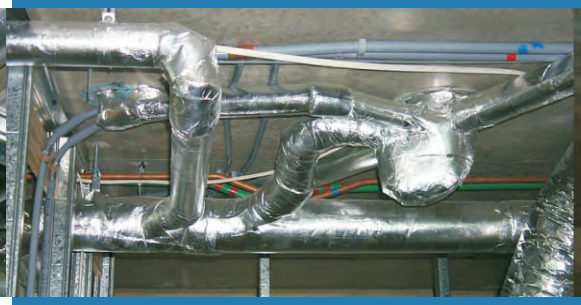
When designing a system using Soundlag 4525C, penetrations through ceilings must be taken into account to ensure effective sound reduction especially from down lights, air conditioning ducting, access hatches and where light-weight ceilings such as mineral fibre tiles are used.

> product construction

Foil facing
Soundlag 4525C uses a strong aluminium foil facing, giving improved fire resistance and increased mechanical strength.

Noise barrier (5 kg/m²)
The Soundlag noise barrier reduces noise through it's unique construction. The specialist fillers create a heavy flexible mass barrier, maximising noise reduction. Soundlag's uniquely flexible and naturally inert nature allows effective, easy installation, essential in achieving a noise-tight seal.

Convoluted foam
The foam provides a decoupling layer which breaks the vibration path allowing the noise barrier to continue to perform in a limp non-constrained manner. Soundlag has enough inherent flexibility to allow convoluted foam to be used, improving fit-out quality on traps and joins.
The polyether foam used in the manufacture of Soundlag products is non-fibrous, will withstand the effects of moisture (hydrolysis resistant), displays excellent acoustic characteristics and has a long serviceable life.



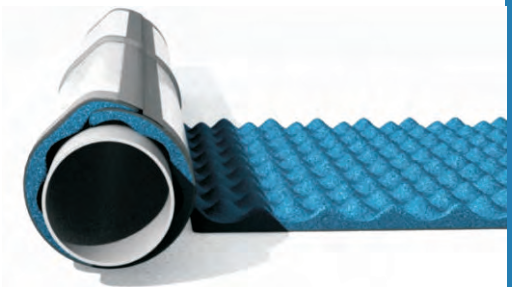
> did you know?

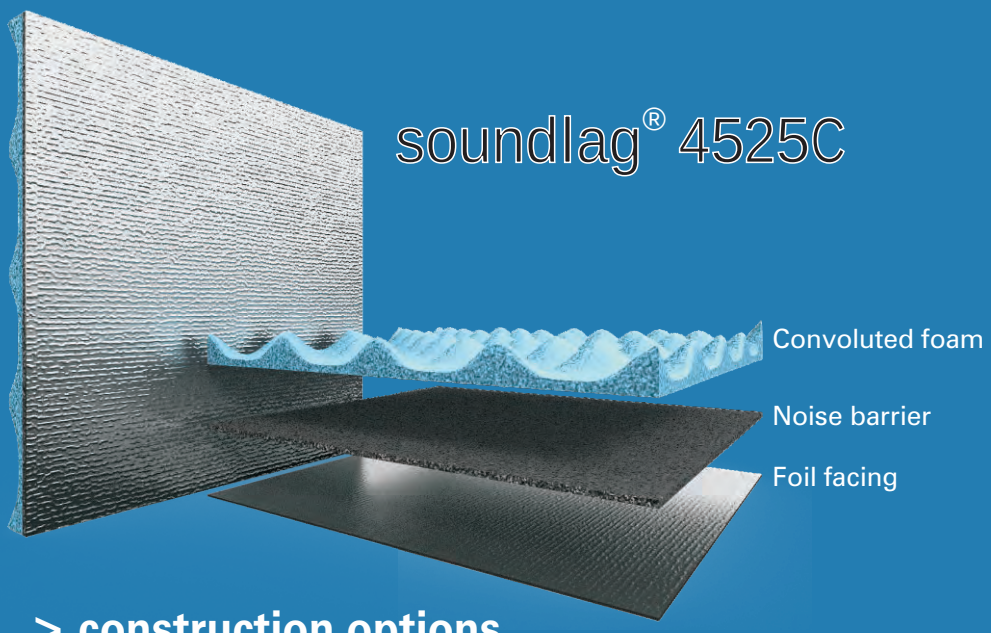
Manufacturers of HDPE and HDPP heavy density acoustic pipes also recommend acoustically lagging pipes with products such as 4525C to comply with building codes.

> installation

Soundlag 4525C is easily installed using Soundtape, a high quality, self adhesive, reinforced foil tape.

To ensure a high quality fit-out, place 3 circumferencial wraps of Soundtape every 300 - 400mm, ie 3 wraps per 1m of pipe.





> construction options

Extensive research has enabled Soundlag 4525C to maximise results while remaining cost effective. However, if extra barrier weights or a variation in foam thickness is required, consult your local Pyrotek representative for special orders. Pre cut pieces for bends, junctions and floor waste gullies can be produced from templates available on request.

Pyrotek noise control

> acoustic performance

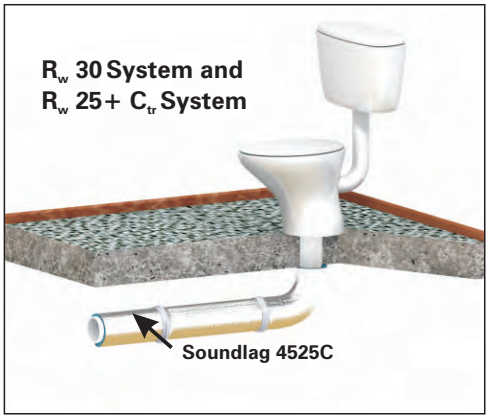
Working with acoustic consultants and test facilities, Pyrotek has designed and tested systems that achieve a high level of noise reduction for all plumbing and hydraulic situations.
Soundlag 4525C is tested in field and independent laboratories to international standards.
Refer Information Page 411IP for more details

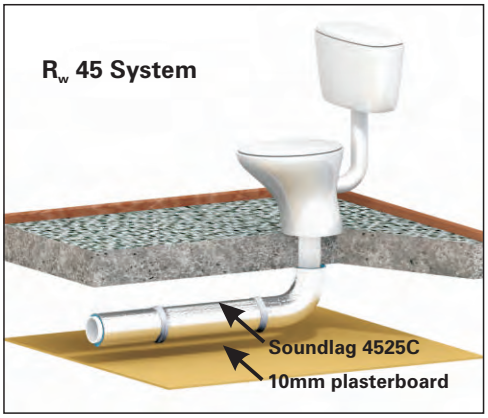
> properties

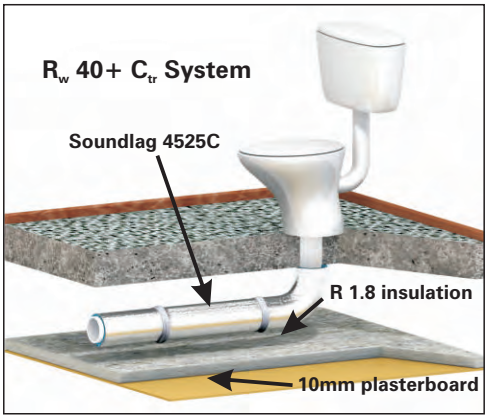
Standard roll size	1350 x 5000mm or 675 x 5000mm (nominal ± 5%)
Roll weight	34kg – 36kg (nominal ± 5%)
Thickness	25mm (nominal ± 5%)
Operating temperature (maximum continuous)	80^{0} C
Operating temperature (maximum intermittent)	100^{0} C
Flammability - AS 1530 Part.3, 1999	Ignitability 0, Spread of Flame 0, Heat Evolved 0, Smoke Developed 0-1
Flammability UL94	HBF

> acoustic testing

Insertion loss: (NAL ATF 750B Report)	25 dB (A) (1/3 octave band 100Hz to10kHz)
Insertion loss (system): (TA 129-D7F03 Report)	Greater than R_w45
Free hanging (ASTM E-90-90)	R_w28
Transmission loss (As1276)	R_w27







As shown above, Soundlag 4525C meets the requirement of Section F5.6 of the current Australian Building Code (2005)

AUSTRALIAN BUILDING CODE REQUIREMENTS
For the states and territories of Australian Capital Territory, New South Wales, South Australia, Tasmania, Victoria and Western Australia. Section F5.6 of the current Australian Building Code (2005) requires that:
"If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an Rw + Ctr (airborne) not less than—
(i) 40 if the adjacent room is a habitable room (other than a kitchen); or (ii) 25 if the adjacent room is a kitchen or non-habitable room."
For the states and territories of Queensland and the Northern Territory.
Specifically F5.6 Soil and waste pipes to be separated states the following:
If a soil or waste pipe, including a pipe that is embedded in or passes through a floor, serves or passes through more than one sole-occupancy unit –
(a) the pipe must be separated from the rooms of any sole-occupancy unit by construction with an Rw not less than –
(I) 45 if the adjacent room is a habitable room (other than a kitchen); or (ii) 30 if the adjacent room is a kitchen or any other room.

AUSTRALIA
1300 928 322
(1300 WAVEBAR)
+61(0)2 8868 2088

CHINA
+86(0)755 8601 6449

HONG KONG
+852 2548 4443

CZECH REPUBLIC
+420 516 527 195
+420 725 373 966

DUBAI
+971(50)624 9254

NEW ZEALAND
0800 226 878 427
(0800 ACOUSTICS)
+64(0)9 272 2056

TAIWAN
+886 6 313 1267

UNITED KINGDOM
+44(0)1908 561155

TURKEY
+90 212 230 3033

USA
+1 509 926 6211

DNV QUALITY ASSURED ISO 9001

www.pyroteknc.com

Pyrotek noise control