

Thermotec NuWrap 5 Specification

The acoustic lagging for the soil, waste and stormwater pipes will be NuWrap 5 manufactured by Thermotec Australia Pty Ltd .

The material will be 5kg/m² loaded polymer barrier over 25mm nominal thickness convoluted polyurethane foam. The outer skin of the loaded polymer will be faced with a heavy duty reinforced aluminium foil, tested to achieve a fire performance of “four zeros” to AS1530.part 3.

When tested by a NATA (National Association of Testing Authorities) registered authority (Vipac Engineers and Scientists),with a single layer of Nuwrap 5 around a 100mm SN6 PVC Pipe, the result is an sound transmission loss of R_w63 (R_w+C_{tr} 56).

When used in conjunction with 10mm plasterboard ceiling the result is a sound transmission loss of $R_w 67$ (R_w+C_{tr} 59). This is in excess of the BCA requirement for Australia and also exceeds the Qld/NT variation of R_w45 , habitable adjacent room and R_w30 if adjacent room is a Kitchen or any other room.

Material will be cut to size to neatly cover all pipe work. Straight lengths of pipe will incorporate a 50mm nom. overlap along the length. Fittings will be covered with NuWrap 5 carefully cut to ensure complete coverage. Use of factory precision cut NuWrap 5 (Flat Packs) for PVC fittings is recommended unless a professional lagging installer is employed to fit the insulation.

All overlaps and joins will be sealed over using high tack reinforced aluminium foil self adhesive tape. Tape will be pressurised correctly to ensure maximum adhesion at installation time. Tape will be tested to AS1530.3 to achieve acceptable fire performance to the Building Code of Australia

Thermotec NuWrap 5 Product Data Sheet

DESCRIPTION : 25mm convoluted acoustic foam applied to a 5kg per mtr squared loaded polymer barrier with a factory applied reinforced aluminium for optimum fire performance.

DIMENSIONS : 25mm Nominal Thickness x 1.35mtr x 3mtr Roll
 Pipe Strips 40mm to 250mm diameter x 1.35mtr
 Most PVC Fittings
 Pot Gullies
 45 Degree Junctions
 45 Degree Bends 40mm to 110mm Diameter
 90 Degree Bends 40mm to 110mm Diameter

PRODUCT RANGE : NuWrap5 comes in a standard roll or alternatively pre cut pipe strips 1350mm long and available from 40mm dia to 250mm dia pvc pipe.
 NuWrap 5 Flat Packs are available for most standard PVC fittings.

FIRE PERFORMANCE : Ignitability 0
 Spread of Flame 0
 Heat Evolved 0
 Smoke Developed 0-1*
 *Note the above represents the optimum achievable fire Performance results as per AS 1530.0 and is often referred As "Four Zero" fire performance

OZONE DEPLETION : Thermotec NuWrap 5 does not contain any ozone depleting substances in manufacturing process or the composition of the product as per EMI 9 and US EPA list of Ozone Depleting Substances (Class 1 and Class 2).

Thermotec NuWrap 5 “Flat Packs” Installation

“NuWrap 5 Acoustic pipe Strips for straight sections”

NuWrap 5 Acoustic Strips are factory cut to suit the exact pipe diameter an overlap strip pre cut along one edge. Wrap around pipe and tape along overlap and around the butt joints. Use reinforced aluminium foil tape along edges and to cover butt joints neatly as shown.

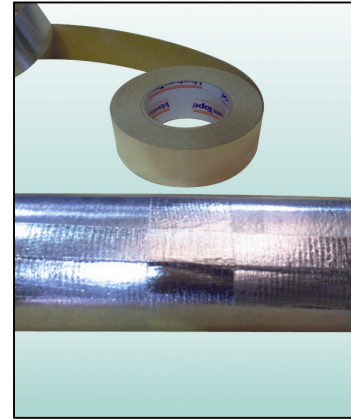
Step 1.



Step 2.



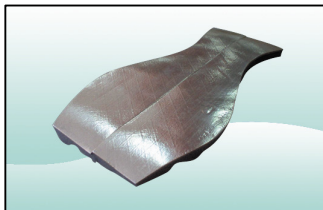
Step 3.



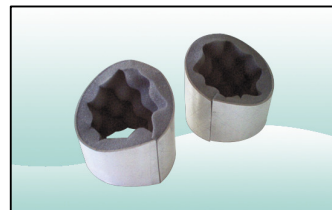
“NuWrap 5 Acoustic Flat Packs 45° and 90° Bends”

This assembly applies to 45 and small 90 degree bends. Each bend is made up of two segments that are separated and when assembled appear as shown below. They are easily wrapped around each half of the fitting in situ and then sealed closed with reinforced aluminium tape.

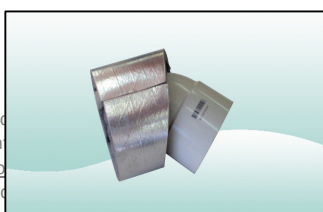
Step 1.



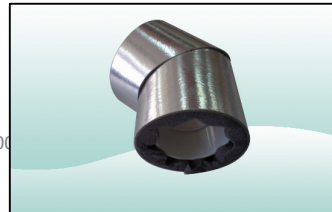
Step 2.



Step 3.



Step 4.

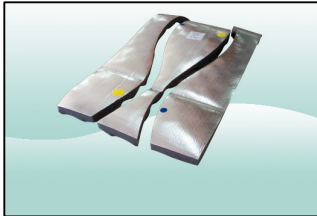


Thermotec NuWrap 5 “Flat Packs” Installation

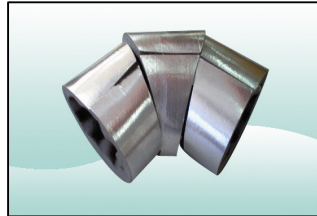
“NuWrap 5 Acoustic Flat Packs larger 90° Bends”

Assembly of larger 90 degree bends are made using 3 segments. Again, it is easiest to fit each section individually over existing fitting in-situ. Use a small piece of aluminium tape to hold each piece in place and then seal all joints as shown below.

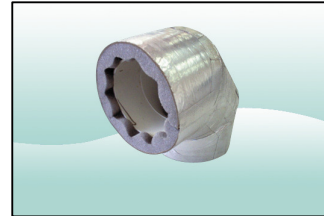
Step 1.



Step 2.



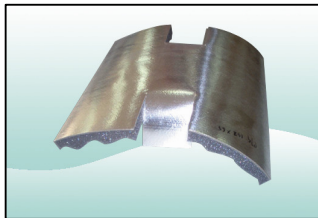
Step 3.



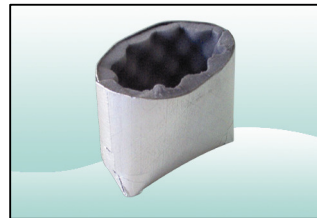
“NuWrap 5 Acoustic Pot Gully”

Pot gullies are folded into shape as shown below in step 1 and are then taped closed as in step 2. The complete acoustic pot gully is then slipped over the fitting as shown in step 4 and taped into place tightly adjoining the acoustic lagged pipe above the fitting.

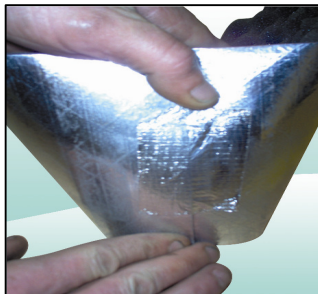
Step 1.



Step 3



Step 2.



Step 4.



Thermotec NuWrap 5 “Flat Packs” Installation

“NuWrap 5 Acoustic 45° Junction”

The NuWrap 5 Acoustic Junction is supplied as shown in step 1. Discard the small oval shaped piece and assemble around the junction as shown. Join coloured dots to show where each edge should meet. The large section can be cut and re taped to allow it to slip over existing pipe work and fittings.

Figure 1.

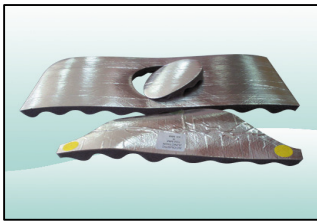
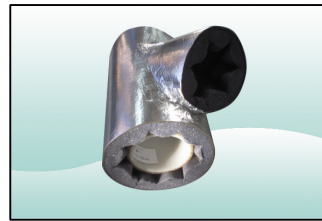


Figure 2.



Figure 3.



NuWrap 5 Material Safety Data Sheet

MATERIAL SAFETY DATA SHEET, NuWave Flexible Barriers

Statement of hazardous nature:

Date of Issue: June 2, 2003

PRODUCT and COMPANY IDENTIFICATION

Manufacturer/Supplier:

THERMOTEC AUSTRALIA PTY LTD
(NuWave Noise Barrier Products)
168 Carrington Street,
REVESBY, NSW, 2212.
AUSTRALIA

Tel: +612 9771 6400
Fax: +612 9771 6466
Emergency tel no. 0417 244019
www.thermotec.com.au

U.N. Number:	None
Dangerous goods class & subsidiary risk	None

Product Name: Loaded polymer acoustic material
Other Name: Nuwave Base, Flexible Barrier, FourZero, NuWrap.

Manufacturer's codes:

NuWrap – All products

NuWave Base – All products

NuWave Unsupported

NuWave FourZero – All products

NuWave FourZero Unsupported

Product use: Acoustic noise reduction material.

NuWrap 5 Material Safety Data Sheet

COMPOSITION and INGREDIENTS

Physical description/properties

Appearance: Dark grey or black vinyl material, may have aluminium foil, black or other colour film facing and polyurethane foams and polyester fabrics adhered to the surface. Thickness typically 1mm to 4mm for products without foam or fibre backing. Up to 40mm thick with foam backings if used.

COMPOSITION and INGREDIENTS cont..

Physical and Chemical Properties

Melting/decomposition range: Over 150 degrees C. Boiling point: NA
 Vapour pressure: NA
 Per cent volatile: nil
 SG: 2.1 +/- 0.1g/cm³
 Flash point: over 150C
 Flammability limit; Self extinguishing upon removal of direct flame source. FlameZero range meets the 'four zero" criteria of AS/NZS 1530.3.
 Auto ignition temperature: Avoid long term exposure over 150C.

Ingredients:

<i>Chemical entity:</i>	<i>CAS No.</i>	<i>Proportion</i>
PVC Polyvinyl Chloride	9002-86-2	Low
Di octyl Phthalate	117-81-7	Medium
Polyurethane foam	9009-54-5	High >60% (when used)
Polyethylene foam		Medium >20 % when used
Inorganic fillers		High >70%

May contain small amounts of insolubles or plasticizer extenders. Does contain small amounts of pigments.

HEALTH HAZARD INFORMATION

Health effects and odours:

The material does not contain any ingredient which under any normal installation conditions should lead to health hazards such as skin irritations, mucous irritation or breathing difficulties.

It is not recommended that the material be taken orally.

On foam backed products, temperatures in excess of 135 c may result in the production of irritating or toxic fumes.

First Aid:

In case of overexposure to fumes, vapors or smoke, remove victim to fresh air. Render breathing assistance if required and consult a physician.

In case of eye irritation from contact of foam dust, fume, vapor or smoke, flush with ample quantities of water or suitable eyewash for 15 minutes.

Consult a physician.

PRECAUTIONS FOR USE

Exposure limits: Not applicable

Ventilation: None required under normal conditions

Personal protection:

Respiratory protection: None required under normal conditions

Protective gloves: None required

Eye protection: None required

NuWrap 5 Material Safety Data Sheet

Flammability:

Material should be kept away from excessive heat sources.

The foam backed products may burn with high heat and evolution of black smoke.

Foil faced products (eg 4zero) comply with AS1530.3.1989 four zero fire rating.

Test report available on request.

Test report on foams available on request.

SAFE HANDLING INFORMATION

Storage & Transport:

Store in dry areas. Transport under cover where possible, no hazard precaution requirements.

All rolls must be lifted with a minimum of two persons.

Average weight per roll may be in excess of 30KG.

Spills & disposal:

Any convenient and logical manner.

Dispose of as landfill as required by local or state regulation.

Fire / Explosion hazard:

There is no potential for fire or explosion.

No special procedures are expected to be necessary for this product.

Normal fire fighting procedures should be allowed for to avoid inhalation of smoke and gases.

NuWrap 5 Material Safety Data Sheet

SAFE HANDLING INFORMATION cont..

Extinguishing media:

Dry chemical, water, carbon dioxide.

Special Firefighting Procedures:

Wear self contained breathing apparatus.

Contact Point:

Technical manager Phn 02 9771 6400

Date: June 2, 2003 Fax: 02 9771 6466

The information supplied herein is presented in good faith and believed to be accurate to the best knowledge of the manufacturer. It is also predicted on normal use of the product. However, since conditions of use are beyond our control we make no warranties, expressed or implied as to the use of this information or to the suitability of product for a particular purpose.