

ACOUSTIC LAGGING FOR PLASTIC DRAIN, WATER AND WASTE PIPES





- Substantially reduces noise from soil and waste pipes
- Satisfies the requirements of the Building Code of Australia 2013
- Highly flexible for ease of installation
- Available in pre-cut sheets for common PVC pipe sizes
- Cost effective and available throughout Australia and the Asia Pacific region
- Independently tested by Vipac Engineers & Scientists Ltd



HIGH-PERFORMANCE ACOUSTICS

Water flowing through PVC soil and waste pipes can be a common noise problem in many buildings. In apartments, hotels and office buildings this can be unacceptably noisy and significantly disturb the building's occupants. To minimise this annoyance, and to meet the sound insulation requirements of the BCA, pipes should be lagged with Armawave 2540. This 3-layer composite system is designed to offer both excellent acoustic performance and ease of installation



Technical Data	
Vinyl barrier weight (2mm)	5kg/m²
Thickness	25mm
Maximum temperature	80°C
Fire performance (AS1530.3)	0,0,0,0-1
Weighted Sound reduction index	$R_w = 27 \text{ dB}$

Octave band	IL (dB)
125 Hz	1.3

Measured Sound Insertion Loss IL

Octave barra	IL (db)
125 Hz	1.3
250 Hz	6.9
500 Hz	10.3
1000 Hz	16.2
2000 Hz	31.9
4000 Hz	41.2

The Sound Insertion Loss is a measure of the efficiency of an acoustic treatment. It is determined as the difference in sound power emitted by a noise source with and without treatment.

BCA COMPLIANCE

BCA REQUIREMENT

The Australian National Construction Code (NCC) 2013, in its Building Code of Australia volume 1, requires that pipes for storm water, soil waste or water supply that serve or pass through more than one *sole-occupancy unit* must be separated by a construction providing sound insulation.

The NCC requirement for pipes is that this construction has a $R_w + C_{tr}$ (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

Armawave 2540

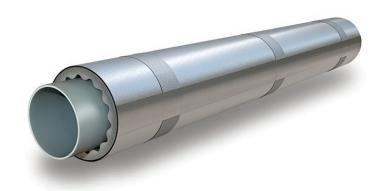
Testing on 100mm diameter PVC pipes, has shown that the Armawave 2540 systems are deemed to satisfy the NCC requirements.

INSTALLATION

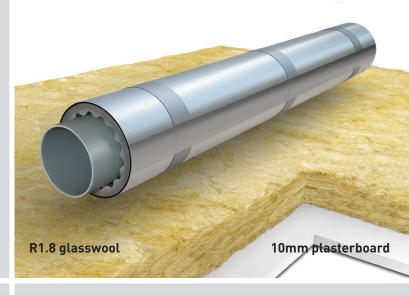
Armawave 2540 can be cut from rolls to fit around the circumference of the plastic pipe. All butt joins should be overlapped by 50mm. All longitudinal joins should also be overlapped by 30 - 50mm.

All joins should be secured with a high-tack reinforced aluminium self-adhesive tape. A circumferencial band of tape is recommended every 300mm to overcome sagging and to ensure that Armawave is held in close contact with the pipe.

R_w + C_{tr} ≥ 25 dB system



 $R_w + C_{tr} \ge 40 \text{ dB system}$



Armawave 2540 is independently tested by Vipac Engineers & Scientists Ltd to demonstrate compliance to the requirements of the NCC.



PRODUCT RANGE



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Description	Width	Length	Item Code	Rolls / Pallet	Weight per roll
Roll, 4.2 sqm	1.2 m	3.5 m	AW-25MM/E	15-25	22.3 kg

Pre-cut sheets

PVC pipe size	Width [mm]	Length	Item Code	Quantity per pack	Weight per pack [kg]
40mm (1½")	240	1.2	AW-25-040	10	15.3
50mm (2")	280	1.2	AW-25-050	10	17.8
65mm (2½")	320	1.2	AW-25-065	10	20.4
80mm (3")	400	1.2	AW-25-080	10	25.4
100mm (4")	480	1.2	AW-25-100	5	15.3
150mm (6")	660	1.2	AW-25-150	5	21.0

SPECIFICATION CLAUSES FOR ENGINEERS

The sound insulation of soil, waste, sanitary drainage and water pipes shall be from Armawave 2540 acoustic lagging or equivalent, manufactured with an acoustic isolation foam and a mass barrier to a total weight of not less than 5kg/m2.

The acoustic insulation should be certified by an independent, NATA accredited laboratory, and show equivalent sound insulation performance (Insertion Loss) as that of constructions specified in Part F5.6 of the National Construction Code Volume 1, Building Code of Australia 2013. Where pipes are located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the sound insulation should achieve a $R_w + C_{tr}$ (airborne) of not less than 25 if the adjacent room is a kitchen or non-habitable room. If the adjacent room is a habitable room, the sound insulation shall achieve a $R_w + C_{tr}$ (airborne) of not less than 40.

The acoustic insulation shall be fibre-free and dust-free. It should be tested to AS1530.3 to show compliance with the fire performance requirements of Specification C1.10 in the Building Code of Australia 2013. The acoustic insulation shall be installed according to the manufacturer's specifications. It should be cut to size to neatly fit all pipe work, and incorporate overlaps on all joins. All joins shall be secured with an appropriate foil tape.

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