



PJ BOWERS P/L ATF PJ Bowers Family Trust

PH. 07 5593 8277 FAX. 07 5593 8477 MOB: 0434 778 355

13 Central Drv, Burleigh Heads, Qld 4220.

Web : www.pjbowers.com.au Email : terry@pjbowers.com.au

The Secretary,

Institute of Plumbing Inspectors,
PO Box 2219,
Brookside Centre, Qld., 4053

Re: " Neolon " Expanded Polyethylene Solar Pipe Wrap.

Good day Tracey,

After recent contact with both Eddie Denman and Max Hunter I wish to submit for the approval of The Institute a " Third Party " certification of our product " Neolon " Expanded Polyethylene when used as a pipe and sheet wrap for solar thermal insulation.

I enclose for your attention several samples of both pipe section and flat sheet from which you will note the quilted and polymer protected Aluminium foil external covering. Both the foil and EPE foam are thermo bonded.

Would you please also place PJ Bowers on The Institute mailing list

Relevant certified results tested in accordance with mandatory standards are as follows:

- (1) AS / NZS 1530.3 – 1999

Ignitability Index	0	(Range 0-20)
Spread of Flame Index	0	(Range 0-10)
Heat Evolved Index	0	(Range 0-10)
Smoke Developed Index	2	(Range 0-10)

- (2) ISO 8302 – 1991

Thermal Resistance	10 mm	0.280
	13 mm	0.326
	15 mm	0.401
	20 mm	0.546

- (3) AS 1799.1 – 2099

Density	32.25 kg / CM	Min 32 kg /CM
Water Take Up	269 cc/ M3	Max 400 cc/ M3
Dimensional Stability	Nil	Crude Oil
	Nil	Diesel Oil
	Nil	Kerosene

- (4) ISO 3146 – 2000

Melting Point	189 Degrees C
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Yours faithfully,

(T J Imrie)
National Sales Manager

P.J. BOWERS Pty Ltd

13 Central Drive, Burleigh Heads
Queensland 4220, Australia



Phone: (07) 5593 8277

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Web: www.pjbowers.com.au

AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing
A.B.N. 43 006 014 106
1st Floor, 191 Racecourse Road, Flemington, Victoria 3031
P.O. Box 240, North Melbourne, Victoria 3051
Phone (03) 9371 2400 Fax (03) 9371 2499

TEST REPORT

CLIENT : PJ BOWERS PTY LTD
13 CENTRAL DRIVE
BURLEIGH HEADS QLD 4220

TEST NUMBER : 7-578107-NQ
ISSUE DATE : 19/04/2011
PRINT DATE : 29/04/2011
ORDER NUMBER : 00015310

SAMPLE DESCRIPTION Clients Ref: "Neolon 13mm"
Recycled Polyethylene Foam
with bonded Aluminium Face

ISO 8302-1991 Thermal Insulation (Guarded Hot Plate Test)

Test conditions:

Mean Heat Flux(W/m2) 4.241
Mean Rct(m2K/W) 0.326

SEE SPREADSHEET FOR RESULTS

The thermal resistance values contained in this report are determined by testing in accordance with ISO 8302 and specifically describe the steady state thermal properties of the tested product associated with that method of test

Results contained in this report do not infer thermal information where the product is used under conditions differing from those under which the product was tested

It should be noted that whilst sufficient time has been allowed prior to testing for the product to recover from compression during transit it has been tested at the thickness nominated in the report. This may differ from the client's expectations of nominated thickness at the point of manufacture, we have therefore included the additional calculated measure of the thermal resistance at the client's nominated thickness

The results contained in the report are those which have been requested and do not necessarily denote compliance in entirety to ASNZS 4859.1

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(END OF REPORT)

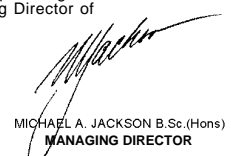
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Samples, and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. The above test results are designed to provide THE CLIENT WITH GUIDANCE INFORMATION ONLY.

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MICHAEL A. JACKSON B.Sc.(Hons)
MANAGING DIRECTOR

AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing
A.B.N. 43 006 014 106
1st Floor, 191 Racecourse Road, Flemington, Victoria 3031
P.O. Box 240, North Melbourne, Victoria 3051
Phone (03) 9371 2400 Fax (03) 9371 2499

TEST REPORT

CLIENT : PJ BOWERS PTY LTD
13 CENTRAL DRIVE
BURLEIGH HEADS QLD 4220

TEST NUMBER : 7-578286-NQ
ISSUE DATE : 03/05/2011
PRINT DATE : 04/05/2011
ORDER NUMBER : 00015310

SAMPLE DESCRIPTION Clients Ref: Neolon 20mm
Recycled Polyethylene Foam
Unbonded Foam Sample

ISO 3146-2000 Melting Point
189 degC

186844

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(END OF REPORT)

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A handwritten signature in black ink, appearing to read "Michael A. Jackson".

MICHAEL A. JACKSON B.Sc.(Hons)
MANAGING DIRECTOR

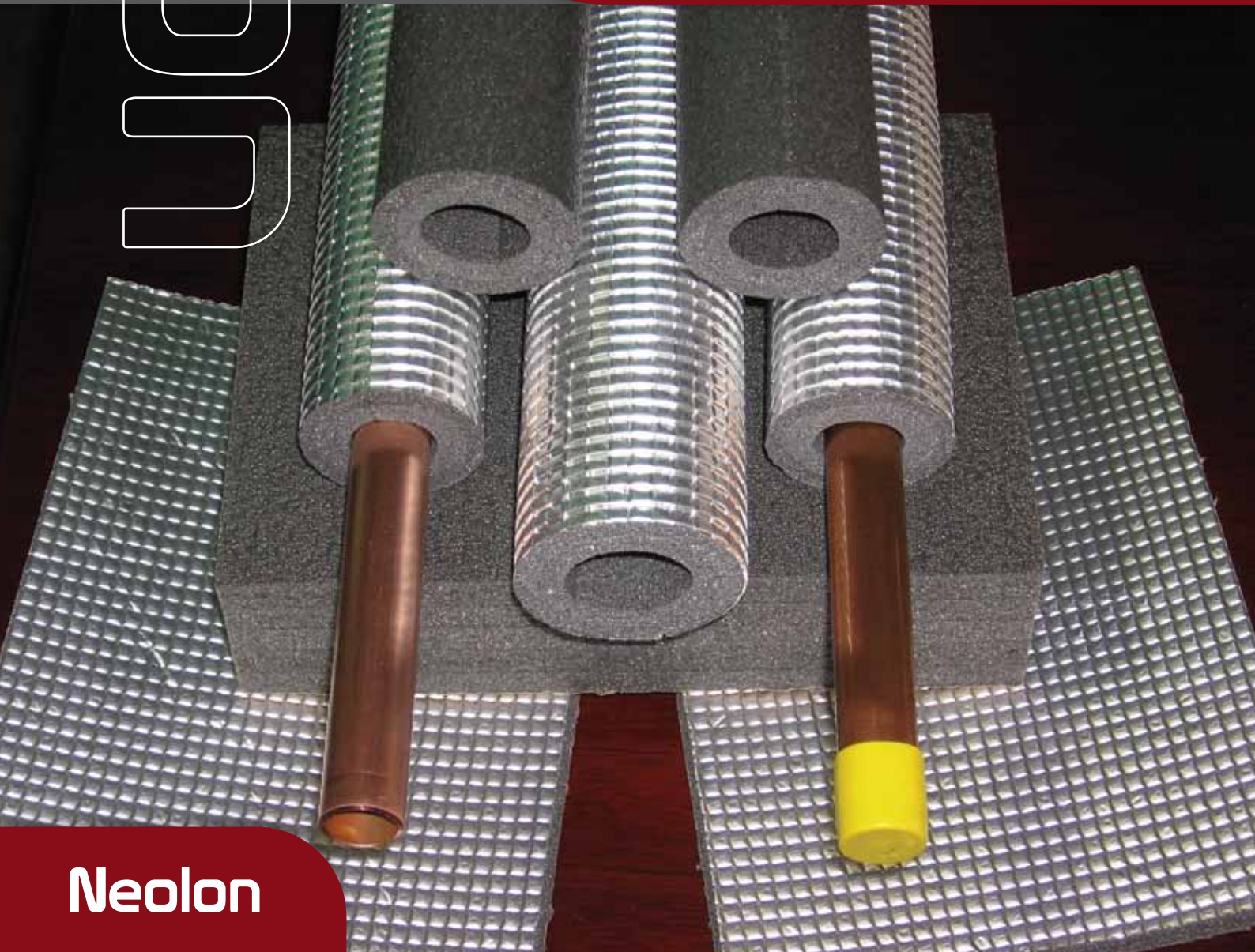
NEOLON



P.J. BOWERS Pty Ltd
a World of New Ideas

ABN 48 262 646 574

**Recycled & Expanded
Polyethylene Insulation
with Polymer Coated
Aluminium Foil for Solar
& Elevated Temperatures.**



Neolon



Neolon

Cross linked Expanded Polyethylene foam insulation is a recycled thermoplastic material composed essentially of the elements Carbon and Hydrogen. It does not contain any environmentally damaging compounds and as such exhibits superb fire control properties with virtually no toxicity. The closed cell structure entraps microscopic voids of air that minimise convection currents and collectively make an ideal insulator. Existing temperatures are thus maintained and any external hot or cold change is buffered. This feature is also beneficial in blocking the passage of free water.

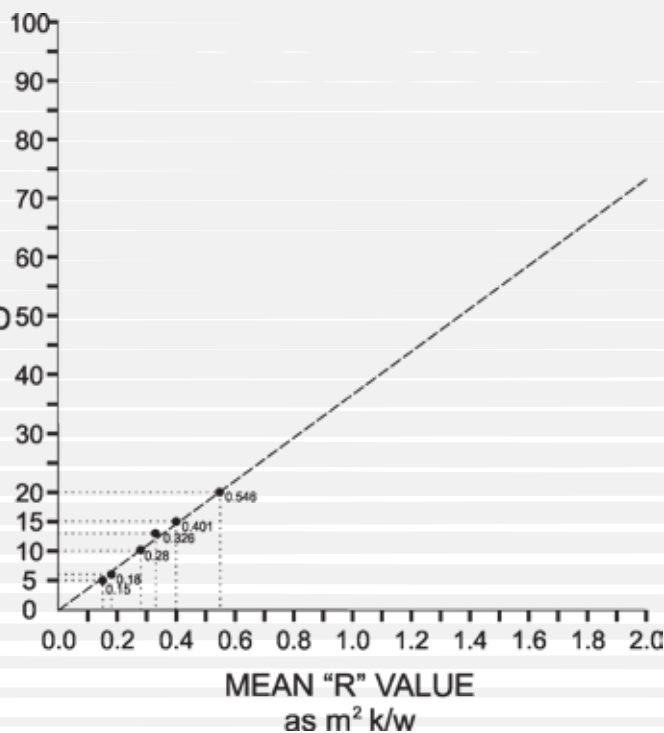
Neolon

Insulation foam, because of its semi rigid and honey-comb like composition, can be considered as highly efficient and appropriate in all environments where an elevated Thermal Resistivity or "R" Rating is necessary and demanded by local government. With uniform and steady external conditions the value of "R" is governed by the thickness of insulation and the following comparison indicates for contractors the depth of "NEOLON" required.

- **Recycled Expanded Polyethylene**
- **Thermal Resistance Values**
- **Tested in accordance to ISO 8302.1991 Under steady - state conditions.**



THICKNESS OF NEOLON FOIL BONDED INSULATION IN M.M.



Neolon

In its many forms offered to industry is a petrochemical derivative and must be guaranteed to resist direct exposure to heat and fire. In Australia and New Zealand AS/NZS 1530.3 - 1999 applies and values with and without foil are nominated below.

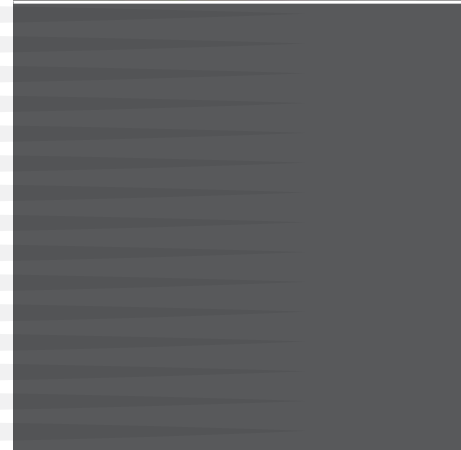
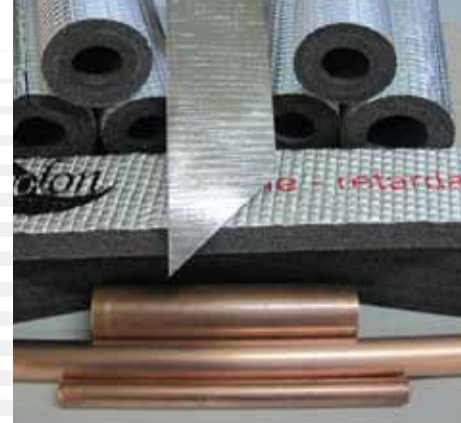
Heat degradation and hot temperature surge results to ISO 3146 - 2000 must not be allowed to exceed 185C.

CATEGORY	RESULT	RANGE
Ignitability Index	0	0-20
Spread of Flame Index	0	0-10
Heat Evolved Index	0	0-10
Smoke Developed Index	2	0-10

Neolon

If exposed to general household and commercial solvents and free water must maintain a guaranteed thermal property and hence, when subjected to the rigors of AS 1799. 1-2009, gives an impressive array of results.

Density	32KG/M ³	
Water Take Up	269CC/M ³	Max 400 CC/M ³
Dimensional Stability	Crude Oil	Nil Effect
	Diesel Oil	Nil Effect
	Kerosene	Nil Effect
	Petrol	Nil Effect



“neolon” foil sheet & pipe wrap

Is designed for placement in residential and industrial premises where protection from ultra violet radiation and corrosive matter such as sea salt mist and rain become necessary.

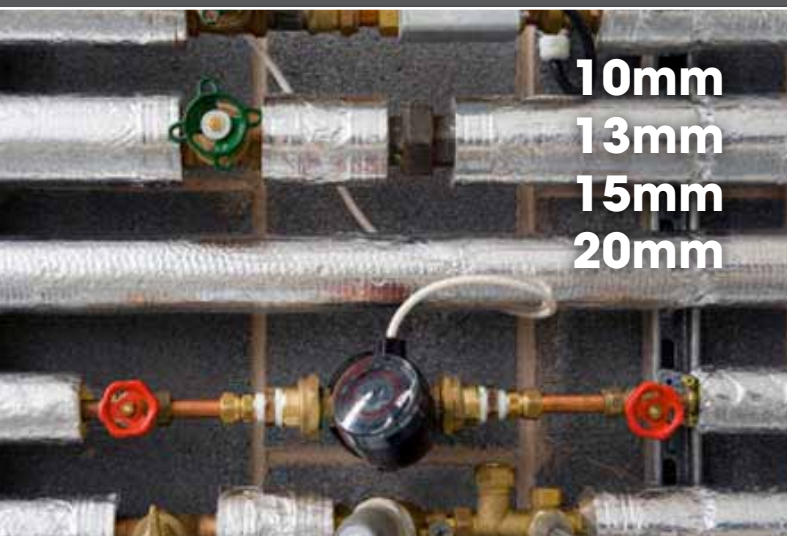
The thermally bonded foil is polymer coated and quilted with the flexibility to bend through 90 degrees without creasing. It is bright and polished in order to reflect unwanted sunlight and aesthetic in presentation.

Pipe wrap with foil is obtainable in 2 metre lengths having common size internal diameters and wall profiles.

Flat foil sheet (with or without “Stickyback™” adhesive) of footprint 2400 x 1200 mm is available in thicknesses up to 100mm.

Local government needs relative to “R” Factor are pivotal on wall thickness and “Neolon” Pipe wrap with foil has the following values in line with ISO 8302.1991.

NEOLON



10mm
13mm
15mm
20mm



0.28 W/M²K
0.33 W/M²K
0.40 W/M²K
0.55 W/M²K

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