

## Technical Data Sheet

### FM Insulation Supplies

#### Therm -o- Lag - Hanalon - Yoojinlon Chemically Cross Linked Polyethylene Sheet & Pipe Insulation

Product description : Pipe Insulation

Our Polyethylene pipe insulation is supplied in 2m lengths in various sizes (mm odp) to suit specific (steel & copper) pipe sizes.

note : some larger sizes are supplied in 1M lengths

Each section is split along one edge to facilitate easy application to pipes

The material is supplied with a fire resistant foil facing

Sheet / rolls

Our Polyethylene sheet insulation is supplied in rolls x 1000mm wide x various lengths & thicknesses

Product usage :

Insulation of service & process piping & equipment operating within the products designated temperature range.

Product Density :

nom : 25kg/M3

Water Vapour permeability

this material is classified as non-hygroscopic.

Coefficient of moisture permeability as tested to ASTM E96

per 25mm thickness

10mg/m<sup>2</sup>/s/pa

0.005g/m<sup>2</sup>/hr/mmHg

UV Resistance to ISO4892-3

Excellent

Continuous Service Temperature

-70C to + 95 C (will take intermittent temps to + 120C resulting in 5% shrinkage over 168 hrs)

Fire Resistance Properties when tested to AS/NZS 1530.3 - 1999

refer AWTA Textile Testing Test no. 7-561843 - CN dated 01/09/2008

ignitability index	0
spread of flame index	0
heat evolved index	0
smoke developed index	1

Volatile organic compounds (VOC) & formaldehyde

CETEC tests carried out 23-10-2008 certify that levels of VOC & formaldehyde are below detectable levels

OZONE-DEPLETING POTENTIAL - Manufacturers statement dated 31/7/2008

"This is to confirm that Hansung Hanalon Co., Ltd. Has undertaken an audit of our Chemically Cross linked Foamed Polyethylene for Thermal insulation Tubes, Sheets and Non-cross linked Foamed Polyethylene for Thermal insulation Tubes, Sheets and Backer rods, and reflective foil laminate insulation manufacturing processes referencing the U.S. Environmental Protection Agency list of Ozone-depleting Substances (Class I and Class II) and determined that, to the best of our knowledge, no Ozone-depleting Substances are involved in either the manufacture or composition of these products.

Hansung Hanalon's Foamed Polyethylene for thermal insulations and reflective foil laminates have an Ozone-depleting Potential of Zero."

Mr.Jeong Eui-pyp / President, Hansung Hanalon Co.,Ltd. 31/7/2008

BCA Compliant in accordance with the following test results

Thermal conductivity (k-factor)    0.043 W/mK            AS 4859.1-2018 clause 2.3.3.5

R-Values Flat Sheet

<u>thick mm</u>	<u>R-value</u>
10	0.2
15	0.3
20	0.5
25	0.6
38	0.9
50	1.2

R-Values Preformed Pipe Insulation

AS/NZ S 4859.1.2002 clause 2.3.3.8 (alternative method for the calculation of R-value for pipe insulation) details the formula for calculating the R-value of preformed pipe insulation when the insulation has not been tested to ASTM C335.

This formula utilises the results of identical material tested in the planar mode

In accordance with the requirements of AS/NZS 4859.1 : 2018 clauses 2.3.3.6, 2.3.3.7 & 2.3.3.8 these materials have been tested at both 15mm and 75mm thick, 10 samples of each thickness, the r-values have been based on a k-factor of 0.43 W/m.K. This being the average result of each of the 10 samples

A thickness guide table detailing the individual R-values for piping, based on this formula, can be downloaded from our web site.

The thicknesses noted are based on our standard stock range thicknesses (15mm, 25mm 38mm & 50mm). For individual projects thicknesses can be offered in multiples of 5mm, subject to minimum order quantities, to minimise project costs.

Please contact our office for further details

Available sizes

the material can be supplied in pipe sections to suit all to suit all pipe sizes from 12.7mm odp to 508mm odp

note : not all sizes are stocked in Australia

issued : 23-5-2008

rev 3 : 15-10-2008

rev 3a 27-5-2010

rev 4 15-10-2010

rev 5 8-8-2011

rev 6 15-1-2014

rev 7 21-7-2014

rev 8 6-4-2017

rev 9 : 14-4-2020

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