



Formshield

Foil Laminated Closed Cell Crosslinked Polyethylene Foam



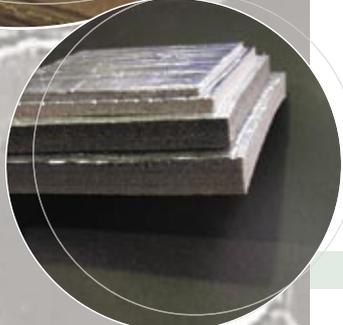
PRODUCT BENEFITS

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|------------------------------|--|
| Thermal Conductivity | - Formshield is an effective insulation against heat transfer, with a low K value of 0.032 w/mK @ 20°C |
| Fire Hazard Rating | - Meets the requirements of AS1530.3 for the Building Code of Australia. |
| Acoustical Properties | - Reduces and absorbs the transmission of noise and vibration. |
| Moisture Barrier | - Closed Cell structure is impervious to water and becomes the barrier in application. |
| Product Resistance | - High resistance to detergents, dilute acids and alkalis, alcohols, ketones, esters, fungi. |
| Temperature Range | - Has a wide range of performance from -40°C to 80°C. |
| Compression Effect | - Crosslinked Foam results in a light but very strong material that prevents deformation around duct corners and pin mountings ensuring consistent insulation performance. |



ADVANTAGE TO APPLICATORS

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|--------------------------|--|
| Safe to Handle | - Non irritant with no special clothing requirements such as gloves or face masks. |
| No Health Hazards | - Does not emit dust or fiber particles. |
| Easy to Install | - Light, flexible and easily cut and fabricated on site with a sharp knife. |
| Damage Resistant | - Can be easily transported without costly damage problems. |
| Optional Adhesive | - Can be supplied with Acrylic Adhesive for quicker installation. |



ADVANTAGE TO END USERS

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|--------------------------|--|
| Energy Saving | - Formshield is an excellent thermal product reducing costs in both heating and cooling applications. |
| Noise Reducing | - Reduces and deadens transmission of airborne and structural noise providing a quieter environment. |
| Health and Safety | - Does not store or emit dust or fiber particles. |
| Protective Aspect | - Cannot be easily torn and provides excellent impact resistance. |
| Performance Life | - Unaffected by water and humidity, Formshield will continue providing its product benefits throughout its service life. |

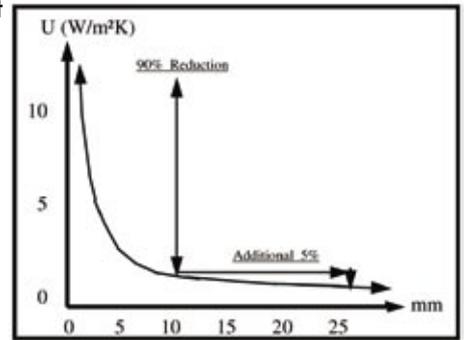
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ESTIMATED MEASURE OF HEAT FLOW REDUCTION (U)

- Formshield achieves an excellent insulation against heat loss from its low thermal conductivity and its cross-linked cellular structure.

- As an example, 10mm thick Formshield is a very cost effective product providing 90% heat flow reduction.

- The "Law of Diminishing Returns" as illustrated in the graph shows that an increase from 10mm to 25mm Formshield provides only an additional 5% of insulation performance. Further thickness increases produce only a negligible increase in performance.



ESTIMATE OF THERMAL PROPERTIES OF AIR CONDITIONING DUCT WITH FORMSHIELD

Product Size	Thickness	Measured Resistance R (m².K/W)	Heat Transfer Coefficient U (W/m².K)
1000mm x 50mtr	5	0.44	2.27
1000mm x 25mtr	10	0.58	1.72
1000mm x 20mtr	15	0.72	1.39
1000mm x 15mtr	20	0.86	1.16
1000mm x 10mtr	25	1.00	1.00

The above estimates are based on the following abbreviated assumptions:

The duct is approximately 300mm in diameter, and located horizontally in still air with no other bulk insulation. The internal surface is rough and the air speed not less than 5mtr/sec. It has a reflective external surface assumed to have an infrared emittance of 0.05. The insulation material is uniform in size with a constant density.

A complete copy of CSIRO Report No. 1181 in regards to the above estimates is available upon request.

FIRE RATINGS - AS1530.3(1989)

Ignitability:	0	(0-20)
Spread of Flame	0	(0-10)
Heat Evolved Index	0	(0-10)
Smoke Evolved Index	1	(0-10)

TECHNICAL DATA

Foam Specification	HNS 4000
Material	Crosslinked Closed Cell Polyethylene Foam.
Density	25kg/m³
Thermal Conductivity	0.032 W/mK@ 20°C
Water Absorption	Below 0.02 g/cm²
Working Temperature	-40° to 80°C
Compression Strength	0.35kg/cm² @ 25%
Noise Reduction	200Hz : 3.0 dB 400Hz : 4.0 dB
Foil	7 micron Aluminium Foil

The figures contained in this brochure are not standard but merely representative from tests KSM 3014.

Youngbo Australia makes no warranty or recommendations as to the use of Formshield for a particular purpose. Data contained herein are typical laboratory results only and do not represent a guarantee of performance in any application. It is the customer's responsibility to satisfy themselves that the product is fit for the purpose for which it will be used.