

GENERAL

Koolfoam expanded polystyrene is the nominated supplier for the Granosite insulating plaster substrate.

KOOLFOAM MANUFACTURING

All of Koolfoams expanded Polystyrene is manufactured in accordance with AS1366 and is processed with state of the art fully automatic computer controlled equipment ensuring the following:

- Accurate density • Good fusion • Dimensional stability • Excellent mechanical properties



INSULATING VALUES OF KOOLFOAM EPS

Koolfoam	K Value	S grade EPS	= K 0.038
Koolfoam	K Value	H grade EPS	= K 0.036
Koolfoam	H grade 40mm		= R 1.11
Koolfoam	S grade 60mm		= R 1.66

INSULATION VALUES WITH 20mm CAVITY CONSTRUCTION

General

EIFS cladding systems using Koolfoam polystyrene, offer superior insulation values and therefore energy efficiency and a lower household carbon footprint.

CALCULATION METHOD

Based on NZS 4214:2006
Section 5.3.2 Ventilated air gaps
A de-rating factor of 45% shall be applied to the ventilated air gap and each layer between the ventilated air gap and the outside air.

Calculation example

Internal surface resistance	= R 0.03
Insulated framing cavity	= R 1.80
Total with no de rating	= R 1.83
20mm cavity	= R 0.25
40mm H Koolfoam	= R 1.11
Exterior surface resistance	= R 0.01
	= R 1.37
De rate by 45%	
Total R for 20mm cavity	= (R 0.79+ R 1.83) = R 2.62

Total Insulation value	
20mm cavity EIFS system	
40mm H	R 2.62
Total Insulation value	
20mm cavity EIFS system	
60mm S	R 2.89





BUILDING CODE REQUIREMENTS

EIFS systems using Koolfoam polystyrene exceeds all minimum code requirements

For all three New Zealand climate zones and in fact achieves 'better' and 'best' practice.



RECYCLING

Expanded Polystyrene if clean is infinitely recyclable.

For all Koolfoam clients we offer to recycle all of their clean expanded polystyrene waste. This will greatly benefit the environment by reducing landfill and production and transport of raw material.

When we deliver to you we can provide bags for the EPS waste and we can either collect these bags when we do further deliveries to the site or you can return them to our factory for recycling.

PROCESS

At Koolfoam we run all the polystyrene waste through a machine that turns the pieces back into EPS granules. We then combine this re-grinded EPS with virgin material and re mould it back into blocks.

These blocks are the cut to size and predominately the product goes into permanent applications such as under concrete floors.



Major State Highway construction on Koolfoam H grade polystyrene

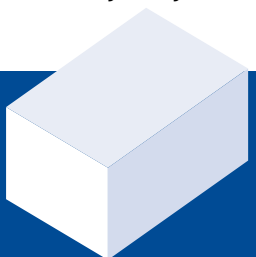
POLYSTYRENE IDENTIFICATION

Currently on all our packets of sheets for EIFS cladding is a sticker

S = Standard density

H = High density

It is important to use the specified density for your EIFS system.



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