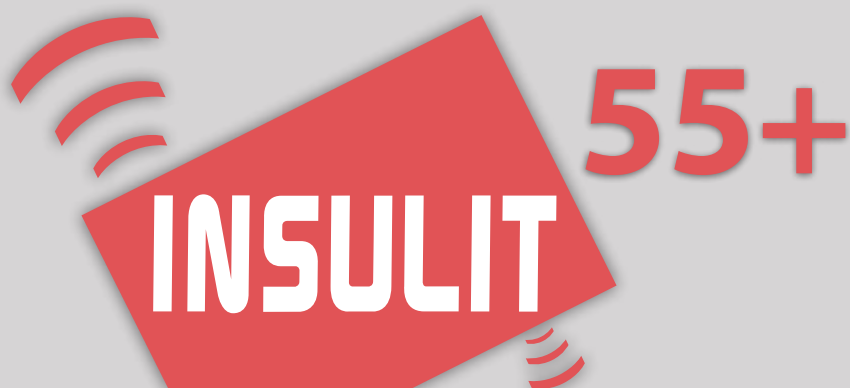


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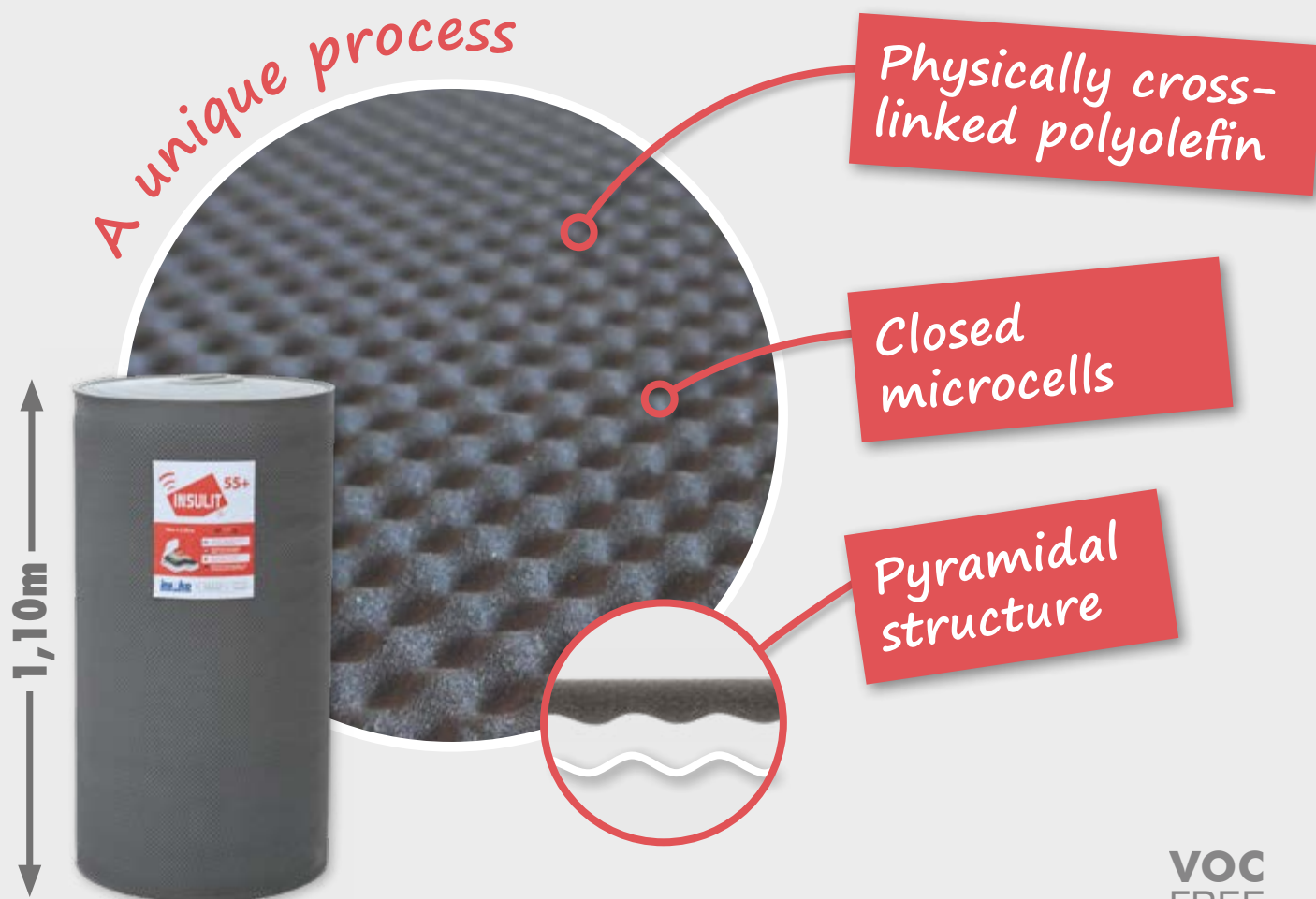


Acoustic underlay for screed

Reduces impact sounds and airborne sounds

ΔL_w 22 - 24 - 26 dB*

BBRI TESTS 2017-2019



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insulation products

High quality, low price

insulit 55+ is an acoustic underlay which aims to reduce the impact sound transmission between the different floors of a building. It has to be placed under floating screeds. Recent tests carried out by the CSTC in accordance with EN ISO 717-2 are proving the outstanding performances of insulit 55+.

insulit 55+ is a physically cross-linked polyolefin foam with closed microcells and a pyramidal structure facing, which grants the product a low dynamic stiffness. insulit 55+ belongs to the « eco line » of our product range, offering affordable yet qualitatively and technologically advanced solutions.

Exclusive structure

Physically crosslinked polyolefin foam with closed microcells
Pyramidal structure



Specifications

Thickness	$\pm 5,5 \text{ mm}$ (under 1,5 kPa)
Colour	Silver grey
Material	Physically cross-linked polyolefin
Acoustic damping	$\Delta L_w = 22 \text{ dB}^1 - 24 \text{ dB}^2 - 26 \text{ dB}^3$
Acoustic reports	<ol style="list-style-type: none"> 1 BBRI (2019): DE-AC-0011 AC-19-011-02-F 2 BBRI (2017): DE-DE-631XB663 AC-7705-F 3 BBRI (2019): DE-AC-0011 AC-19-011-01-F
Weight	$\pm 150 \text{ g/m}^2$
Dynamic stiffness	$s'_t = 61 \text{ MN/m}^3$ (1 layer) (EN 29052-1) $s'_t = 39 \text{ MN/m}^3$ (2 layers) (EN 29052-1)
Thermal value	$R = 0,15 \text{ m}^2\text{K/W}$ (1 layer) $R = 0,30 \text{ m}^2\text{K/W}$ (2 layers)
Compression	$\leq 5 \%$ under 2 kPa (tolerance $\leq 10\%$)
Roll	50 m x 1,10 m = 55 m ²



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Compressive creep :

The insulit 55+ underlay has been designed for durability. We chose materials that do not deform under the load of the floating screed. Compressive creep $\leq 5 \%$

- Tests made under a $\geq 2 \text{ kPa}$ load
in accordance with EN 1606



Guaranteed results

* Performances – comparisons – BBRI test reports

The insulit 55+ underlay already meets the requirements of NBN S 01-400-1 with only a single layer, but it is possible to achieve better acoustic damping by modifying the configuration: all tests have been conducted under a traditional screed with a 60 mm thickness.

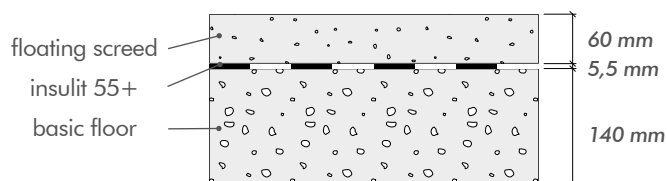
1 insulit 55+ single layer

Placing a single layer of insulit 55+ offers a cheap and efficient solution against impact noise.

$\Delta L_w = 22 \text{ dB}$

$L_{n,r,w} = 56 \text{ dB}$

BBRI report : DE-AC-0011 AC-19-011-02-F (2019)



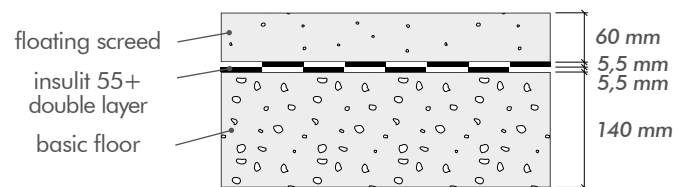
2 insulit 55+ double layer (crossed)

A double layer of insulit 55+ improves acoustic performance and increases safety during installation.

$\Delta L_w = 24 \text{ dB}$

$L_{n,r,w} = 54 \text{ dB}$

BBRI report : DEDE631XB663 AC7705-F (2017)



3 insulit 55+ single layer with insulating screed

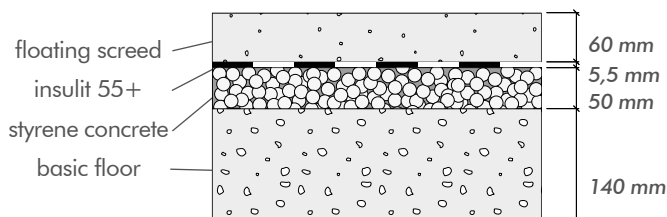
An insulating screed made of styrofoam and cement balls guarantees better acoustic performance.

* insulating screed composition for the test : density 400 kg/m^3 ; thickness 50 mm

$\Delta L_w = 26 \text{ dB}$

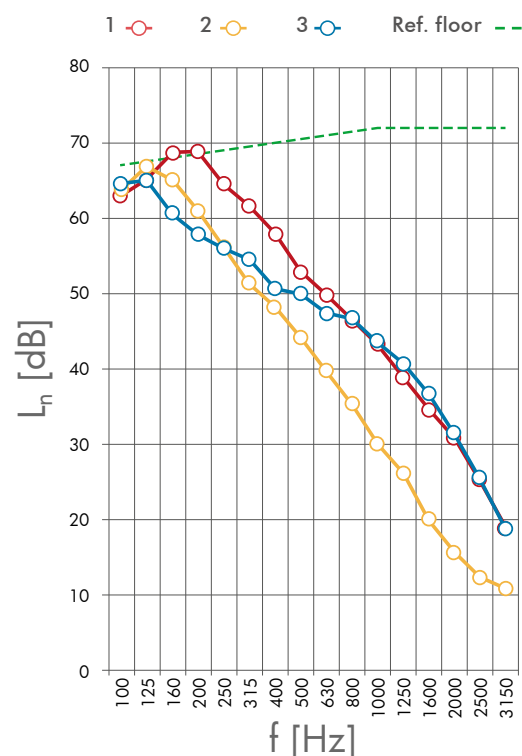
$L_{n,r,w} = 52 \text{ dB}$

BBRI report : DE-AC-0011 AC-19-011-01-F (2019)



Sound curves

Measures related to impact noise reduction



Installation

1 Preparation

1 Make a leveling screed to cover the pipes and the other ducts. If it's not possible to create an insulating screed, the insulit 55+ needs to be unwound directly onto the technics.

The concrete slab must be leveled and carefully brushed. At the junction of the ducts, it is necessary to even out using cement-based sand to avoid creating cavities under the insulit 55+ layer.

2 Installation

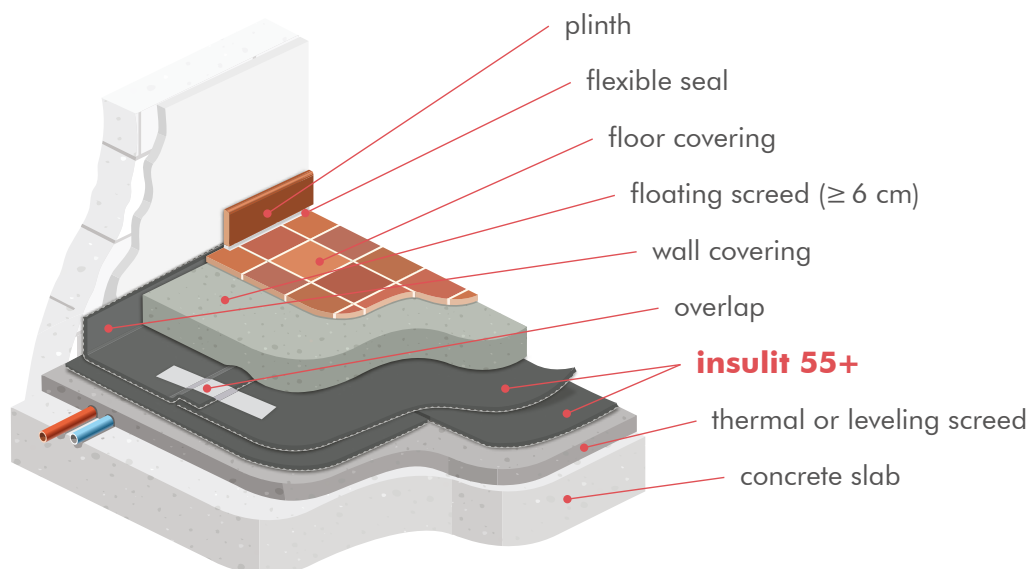
2 Place the insulit 55+ in a single or double-layer (crossed) with its pyramidal structure facing the ground. Create a 5 to 10 cm wide overlap, foam on foam, on the second layer. Maintain the overlap using an adhesive tape (30 cm of tape every 1 m, which needs to be placed perpendicularly to the underlay, should be enough). Lift about 15 cm of the superior insulit 55+ layer against the walls. In case of liquid screed, make sure that the underlay stays perfectly dry by using a PE foil.

Carefully isolate the vertical ducts from the screed they are going through by using a handcrafted sleeve made from insulit 55+. Alternatively, you can use auto-adhesive foam by insulco.

3 Making of the screed

3 Immediately after placing the underlay, pour a reinforced screed (minimum thickness: 5 cm) on a single layer of insulit 55+ or, if you are using a double layer of insulit 55+, pour a min. 6 cm thick reinforced screed over it. When the screed and the floor covering have been successfully placed, cut the remaining insulit 55+.

The plinth has to be placed slightly higher than the floor covering in order to avoid lateral acoustic transmissions. The next step would be to create a flexible joint under the plinth. The screed has to be realised following national recommendations (for Belgium: see NIT 189 and 193).



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