

Technical Description

The thermally highly insulating filler layer is a cement-bound mortar, which consists of a mixture of fine, new EPS beads, which are coated with the right additives at the time of manufacture so that the improved insulation properties are obtained. Sand should never be used. The product may only be pumped with a screw pump and certainly not with a screed pump or any other means of air transport.

The EPS (expanded polystyrene) beads must:

- 95% consist of fine grains with a grain size of 1 to 4 mm, which are necessary to achieve the ideal concrete matrix.
- Achieve a density of 10-13 kg / m³, depending on the compressive strength.
- Low dust to avoid excessive water absorption.

The cement used must be CEM I 52,5 N and is a Portland cement containing Portland clinker (K) as its only main constituent. The clinker content must be at least 95%.

The concrete laying surface and the ground pipes must be inspected and cleaned beforehand. The minimum thickness of the filling layer is 3 cm; preferably a thickness of 5 cm is provided. The insulating mortar is applied continuously and without interruption over the entire cleaned (brushed) warehouse floor and peeled off flat. The filling layer must never be used as a work surface without protection. (e.g. to carry out the cleaning work). The Aerobel AeroMix SHP ECO is pumped on site with specially developed trucks. The installation is carried out exclusively by specialized personnel.

An important part of this AeroMix SHP ECO is the EcoBinder. EcoBinder is an additive that significantly and homogeneously improves the thermomechanical properties of the AeroMix SHP ECO. Due to the improved homogeneity, the pumpability is also optimized. This blue EcoBinder is put into the mixing tub on site.

Applications

AeroMix SHP ECO has a wide of applications depending on the properties needed it can be used as:

- Thermal insulation of all floors
- Acoustic insulation between sublevels
- Filling pipes on the ground floor and the upper floors
- Creation of a slope on flat roofs (leveling screed)
- Void filling (permanent or temporary)
- Lightweight concrete
- ...

Implementation Conditions

Any product of AeroMix SHP ECO can only be installed by an approved installers of the product! Only Aerobel or his authorized distributor can approve an installer to authorize them to install AeroMix SHP ECO. Furthermore:

- The building must be watertight.
- The floor must be clean and brushed.
- The temperature of the storage floor must be frost-free.
- Temperature needs to be between +5°C and +35°C
- Openings in the screed must be closed before installation
- Corner profiles of the plaster must be cut to a 0-pass.
- For windows down to the floor, a Ytong block must be placed on the screed so that the cavity remains open.
- Stairs / cavities / elevator shafts etc. must be provided with edge formwork. In the absence of formwork, install the AeroMix SHP ECO at an angle to the opening.
- Floors under the floor to be built can be plastered, but otherwise not finished. (Seepage of water)
- The walls and the exterior joinery do not need to be masked, except at the wood joinery;
- The implementation is completely seamless.
- There is a drying time / accessibility of 3-5 days.
- The Aeromix SHP ECO floor insulation is installed in one layer until the required thickness (unlimited) is achieved.
- The top is flat, no sanding is required.
- Ready for covering after CM measurement of \leq 12 CM-%
- The traditional screed (at least 7 cm) must not be reinforced (without underfloor heating) Traditional screed (min. 7 cm) must be reinforced.

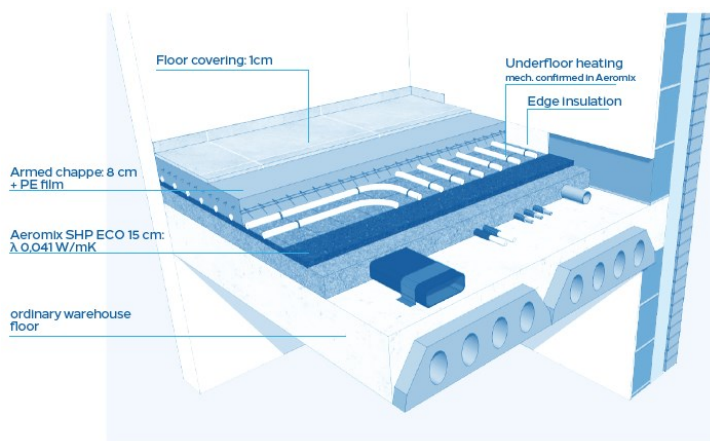
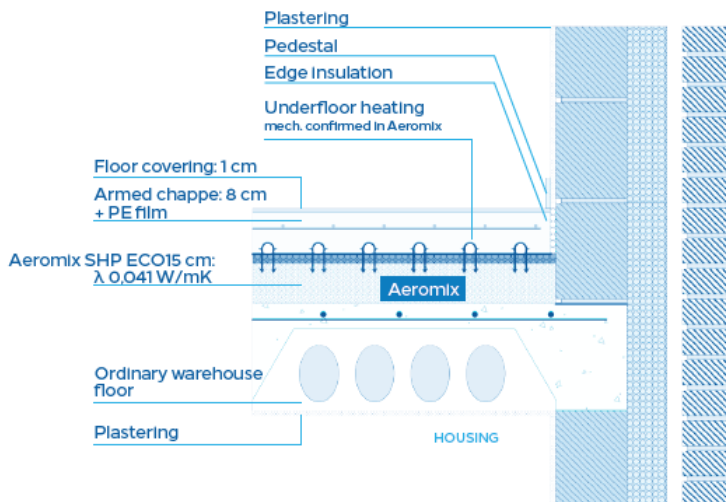
European Technical Assessment (in progress)

UK Technical Assessment (in progress)

EPB-Database "Homogeneous Opaque Construction Products" (in progress)

Material Properties

	SHP	SHP ECO
Coefficient of thermal conductivity (λ)	0,037 W/mK	0,041 W/mK
Volume mass.	93 kg/m ³	120-125 kg/m ³
Compressive strength (σ)	$\geq 135 \text{ kPa}$	$\geq 150 \text{ kPa}$
Impact Sound Reduction	$\geq 19 \text{ dB}$	$\geq 19 \text{ dB}$
CO ₂	80 KG	110 KG
Min thickness	30 mm	30 mm
Processing time (20°C/60%LF)	Min 40 minutes	Min 40 minutes
Processing temp. Min./Max.	+5°C / +35°C	+5°C / +35°C
Drying time / accessibility	3 days (*) / 5 days (*)	3 days (*) / 5 days (*)
Ready for covering after (CM-measurement)	$\leq 12 \text{ CM-\%}$	$\leq 12 \text{ CM-\%}$
Reaction to fire	Class M0 (non-flammable)	Class M0 (non-flammable)
Shelf life	3 months	12 months
Freezing point	0°C	0°C
Storage Conditions	in original sealed container, out of direct sunlight, dust-free, min temperature of +7°C	



(*) Depending on temperature and humidity

(**) Depending on the recycled expanded polystyrene beads used

Mix Design

	SHP	SHP ECO
CEM I 52,5 N	80 KG	110 KG
EPS (10–13g/l)	1000 L	900 L
AeroBinder SHP	4,6 KG	/
EcoBinder	/	1,05 KG
Hardening Accelerator	/	1 KG
Water	90–110L	90–110L