

SMART® LZ

Lightweight mineral aggregate

LZ 987



Lightweight mineral aggregate made from expanded glass granulate for use in conjunction with Sopro Rapidur® B3 or Sopro Rapidur® B5 rapid-set screed binders to produce highly thermally insulating, early overcoatable, lightweight levelling layers. Suitable for all coat thicknesses upwards of 20 mm in bonded construction. As alternative to board subfloor systems. For filling pipe penetrations, large voids and sanitary service runs/assemblies. Ideal for refurbishment/renovation contracts. Also suitable for use as loose fill. Component in Sopro SMART® system in conjunction with Sopro PG-X 1188 armour scrim eXtra and Sopro VS 582 self-levelling filler.

- For floors, indoors
- Offering thermal and sound insulation
- Mineral-based
- Aggregate size: 4 - 6 mm
- High compressive strength
- For low area loads
- For refurbishment/renovation contracts
- As alternative to board subfloor systems
- Fire rating to DIN 4102: A1 (non-combustible)
- Moisture-resistant and permanently dimensionally stable
- Component in Sopro SMART® system
- For levelling between pipes
- Overcoatable: after approx. 12 hours (with Sopro Rapidur® B5 or Sopro SE-Z 1580)
- Low dry apparent density of approx. 0.33 kg/ltr (with Sopro Rapidur® B5)
- Pumpable

Coverage: Approx. 10 l / m²/cm (1.6 kg / m²/cm); approx. 1,000 l / m³ (160 kg / m³)



Item No.	Packaging	pcs./pal.	Pallet weight
8098709	Bag 9 kg	30	270 kg

Use For producing pressure-stable, fast-setting, lightweight levelling layers that can be worked over early with sound and heat insulating properties in conjunction with Sopro Rapidur® B3, Sopro Rapidur® B5 or SoproTherm® SE-Z. For levelling large unevennesses, filling pipe penetrations, installation shafts, large cavities and sanitary blocks. As a substructure for conventional screeds on a separating layer or insulation. Can be installed on a slope. Can also be used as loose fill.

Application First mix a slurry of Sopro Rapidur® B3, Sopro Rapidur® B5 or SoproTherm®SE-Z and the amount of water specified below. Then add this to the corresponding quantity of Sopro SMART® LZ and mix.

Mix with Sopro Rapidur® B3 or Sopro Rapidur® B5:

In number of bags:

1/3 bag Sopro Rapidur® B3/B5 : 1 bag Sopro SMART® LZ : 4.33 - 5.00 litres of water

1 bag of Sopro Rapidur® B3/B5 : 3 bags of Sopro SMART® LZ : 13.00 - 15.00 litres of water

In kilograms: 8.33 kg Sopro Rapidur® B3/B5 : 9 kg (approx. 55 litres) Sopro SMART® LZ : 4.33 - 5.00 l water

25 kg Sopro Rapidur® B3/B5 : 27 kg (approx. 165 litres) Sopro SMART® LZ : 13.00 - 15.00 litres of water

Mixture with SoproTherm® SE-Z:

In number of bags:

1/3 bag SoproTherm® SE-Z : 1 bag Sopro SMART® LZ : 3.47 - 4.00 litres of water

1 bag of SoproTherm® SE-Z : 3 bags of Sopro SMART® LZ : 10.40 - 12.00 litres of water

In kilograms: 6.66 kg SoproTherm® SE-Z : 9 kg (approx. 55 litres) Sopro SMART® LZ : 3.47 - 4.00 litres of water

20 kg SoproTherm® SE-Z : 27 kg (approx. 165 litres) Sopro SMART® LZ : 10.40 - 12.00 litres of water

Mix the lightweight levelling mortar so that it is earth-moist. Do not add any other cements or screed additives.

It is applied in the same way as an earth-moist screed. Mixing, application and levelling must be carried out in quick succession. Only apply partial areas that can be completed within the processing time. Stiffened material must not be made workable again by adding water or mixing with fresh material.

All common mixing and conveying machines are suitable for mixing.

Note: When pumping and conveying by machine, the binder content (Sopro Rapidur® B3, Sopro Rapidur® B5 or Sopro Therm® SE-Z) and the amount of water added must be increased by 50 %.

Alternatively, a synthetic resin-bonded lightweight levelling mortar can be produced from Sopro SMART® LZ and Sopro BauHarz 869. First mix Sopro BauHarz 869 according to the technical product information. Then add this to the appropriate quantity of Sopro SMART® LZ lightweight aggregate and mix. Mixing, application and smoothing must be carried out in quick succession. Only apply partial areas that can be completed within the processing time.

Mix with Sopro BH 869:

5 kg Sopro BH 869 : 9 kg (approx. 55 litres) Sopro SMART® LZ

Shelf Life Approx. 5 years (dry, cool, unopened original container)

Construction Heights And Weights Per Unit Area

Construction	mm	kg/m ²
Sopro VS 582 and Sopro PG-X 1188	10	21,0
Sopro SMART® LZ (bonded)	20	6,6
Sopro SMART®-System incl. Sopro VS 582 and PG-X 1188	30	27,6
	40	30,9

Sopro SMART®-System incl. Sopro VS 582 and PG-X 1188

50 34,2

Payloads	A1, A3 and A3; max. area load 2.0 kN/m ² , max. point load 1.0 kN/m ² (in conjunction with Sopro VS 582 self-levelling filler > 10 mm coat thickness)
Thermal Conductivity	0,075 W/m-K
Coverage Calculation	<p>Sopro LZ 987: approx. 1.6 kg/m² or approx. 10 ltr/m² per cm coat thickness Sopro Rapidur® B3 or Sopro Rapidur® B5 or SoproTherm® SE-Z: approx. 1.2 kg/m² per cm coat thickness.</p> <p>Sopro VS 582: approx. 18.7 kg/m² at 10 mm layer thickness. To consolidate and bond the flow levelling compound with the Sopro SMART® LZ, the levelling compound penetrates approx. 2 mm into the upper lightweight levelling layer. This additional consumption is taken into account.</p>
Impact Sound Reduction	Up to 10 dB*
Coat Thickness	≥ 20 mm for bonded construction ≥ 35 mm on separating or on insulation layer ≥ 20 mm pipe cover
Apparent Density	Approx. 320 kg/m ³ (bound)
Footnote	Test stand value to DIN EN ISO 140-8 serving as a general guide. The performance of trial installations and measurements is therefore recommended, in each case, to establish the actual impact sound reduction index achievable on site.
Tile Sizes	No size limit (min. tile thickness > 6 mm)
Bay Size	Max. 100 m ²
Execution type	<p>Bonded construction with concrete or cement screed: In case of bonded construction with concrete or cement screed, material may be laid horizontally or to falls. Where necessary, mechanically roughen substrate, suction clean, pre-wet and prime with Sopro HS 448 bonding slurry with trass, Sopro HSF 748 flexible bonding slurry with trass or Sopro RS 648 vibration slurry. Place lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5 or SoproTherm® SE-Z wet on wet. Minimum coat thickness: 20 mm</p> <p>On separating layer: Lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5 or SoproTherm® SE-Z may be applied to separating layers in a minimum coat thickness of 35 mm.</p> <p>On insulation layer: Lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5 or SoproTherm® SE-Z may be applied to thermal insulation board or sheet as well as impact-sound insulation mats or board in a minimum coat thickness of 35 mm. A PE sheet is recommended as an intermediate layer. Nominal mortar thickness of min. 35 mm is required on insulation layers subject to</p>

vertical live loads $\leq 2 \text{ kN/m}^2$, for insulation layer compressibility $\leq 5 \text{ mm}$. For divergent loads, specifications of DIN 18 560 Part 2 shall apply.

On wood-board flooring: Lightweight levelling mortar, comprising Sopro LZ 987 and Sopro Rapidur® B3 or Sopro Rapidur® B5 or SoproTherm® SE-Z may be applied directly to strong wood-board floors with sealed joints, subject to minimum coat thickness of 35 mm. Pretreat timber substrate with Sopro HPS 673 bonding primer. Then place lightweight levelling mortar. Existing joints in wood-board floor shall be sealed in advance with Sopro DA 049 acrylic sealant.

Note: Make provision for prescribed waterproofing in damp spaces.

Test Certificates

DIN 4102: Fire rating A1 (non-combustible)

Test report: Impact sound reduction to DIN EN ISO 10140-1 up to 10 dB

Test report: Thermal conductivity approx. 0.075 W/mK

Loadable

After approx. 4 hours with Sopro Rapidur® B3.

After approx. 12 hours with Sopro Rapidur® B5 or SoproTherm® SE-Z.

Specified Times

Apply for normal temperature range of +23 °C and 50 % relative humidity; higher temperatures shorten and lower temperatures lengthen these times.

Working Life

Approx. 40 – 60 minutes (in conjunction with Rapidur® B3 or SoproTherm® SE-Z)

Approx. 2 – 3 hours (in conjunction with Rapidur® B5)

Application Temperature

Bonded: From +5°C to +25°C (substrate, air, material)

Unbonded: All temperatures

Substrate Preparation

For bonded construction, substrate shall be strong, dimensionally stable and free from adhesionimpairing substances (e.g. dust, oil, wax, release agent, efflorescence, laitance, paint, lacquer and varnish residue, old flooring adhesive residue). For unbonded construction, substrate shall be strong. As a rule, installation of perimeter insulation strip is required to avoid sound transmission paths and for subsequent overcoating.

Overcoatable

After approx. 4 hours with Sopro Rapidur® B3; after approx. 12 hours with Sopro Rapidur® B5 or SoproTherm® SE-Z.

Aggregate Size

4 - 6 mm

Safety instructions

Exempt from labelling requirements under Regulation (EC) No 1272/2008 (CLP).

P102 Keep out of reach of children.

German Water Hazard Class:

Disposal

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Clean waste packaging should be recycled when possible and authorized by the authority.

Hazardous waste: No

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

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FOR MORE INFORMATION CONTACT: **Smet Building Products Ltd**

93A Belfast Road | Newry | BT34 1QH | Northern Ireland

T: +44 (0)28 3026 6833 ROI: +353 (0) 1697 8586

E: info@smetbuildingproducts.com

www.smetbuildingproducts.com or www.smet.ie



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