

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the product data sheet valid in Germany.

All stated details and properties are in compliance with the regulations of the German standards and building regulations. They are only applicable for the specified products, system components, application rules, and construction details in connection with the specifications of the respective certificates and approvals.

Knauf Gips KG denies any liability for applications outside of Germany as this requires changes acc. to the respective national standards and building regulations.



Drywall Systems

F473f.de

Product Data Sheet

2020-12



Siliperl®

Mineral, non-combustible, medium-heavy bulk leveller

Product description

Siliperl® is a non-combustible expanded shale bulk leveller. Siliperl® is characterized by high grain strength and thus a high load capability, and is easy to apply. This granulate with diverse applications is safe from rot and chemically neutral. Siliperl® intermeshes to a stable and load-bearing equalization layer due to compaction.

Storage

Store dry on pallets. It can be stored indefinitely.

Quality

In compliance with EN 13055-1, the product is subject to initial type testing and continuous factory production control and bears the CE marking.

Properties and added value

- Highly load resistant
- Non-combustible
- Reduces footfall sound

- Low-pollutant and low-emission indoor product certified by the eco-INSTITUT Germany
- Suitable for leveller heights from 1 cm
- For leveller heights up to 200 mm
- Bulk density of 660 kg/m³
- Suitable for use under pre-fab and wet floor screeds

Field of application

Siliperl® can be used under pre-fab or wet floor screeds and efficiently reduces the airborne and footfall sound pressure level due to the bulk weight of the material. Siliperl® is suitable for the construction of non-combustible floor constructions in conjunction with mineral fibre footfall sound insulation boards. Constructions with proof, e.g. acc. to DIN 4102-4 or other certificate of usability up to fire resistance class F90 can be implemented in conjunction with pre-fab or wet floor screed.

Application

Substrate and pretreatment

Check the residual moisture and loadbearing capacity. Ensure that there is a load-bearing substrate made of planks or wooden composite boards with wood joist ceilings. Use permeable trickling protection on wooden substrates (e.g. Knauf Schrenzlage synthetic coated kraft paper) and apply on the walls and other rising constructional components.

Check the location and construction design of installations (pipes, cables, ducts, and similar). Clean the raw ceiling. Apply a cover of PE foil of least 0.2 mm thickness as protection against rising residual moisture from the floor that overlaps by at least 20 cm or in case of concrete slabs touching the soil, sealing acc. to DIN 18533, e.g. Abdichtungsbahn Katja Sprint sealing membrane and up the walls to the height of construction.

A rule mark is applied to the walls at spacings of approx. 2 m. The floor height is marked using this rule mark as a reference. Siliperl® must be applied with about 5 % excess height to compensate for subsequent compaction. This height is marked additionally and the alignment rails aligned accordingly.

Application

Spreading

Starting at the wall (opposite the entrance doorway) a 25 cm wide strip should be spread high enough so that the upper marking line (incl. 5 % excess height) is slightly covered over. Siliperl® must be at least 1 cm thick over the pipes at the narrowest location.

Ruling

Using the long guide rails, the spread strips are ruled to the height of the marking and then at a spacing of approx. 5 cm to the wall are left lying on the bulk leveller. Parallel at the spacing corresponding to the length of the first levelling rule a second strip is visually estimated and spread, the second guide rail is placed and levelled with the levelling rule. Then Siliperl® is spread between the guide rails and levelled. Do not walk on the bulk leveller to avoid undesired precompaction.

Covering / compaction

Without walking on the bulk leveller, the cover boards, e.g. Fasoperl®-A8 boards are laid starting at the door and extending across the entire surface while avoiding cross joints. This facilitates walking. For up to 6 cm bulk leveller the Fasoperl®-A8 boards are compacted by walking on the full surface. Alternatively, the pre-fab floor screed units with rebated edge are applied directly onto the bulk leveller layer. In case of bulk leveller heights exceeding 6 cm Siliperl® is covered with compression-proof Fasoperl®-A8 wood fibre insulation boards. Compaction is undertaken with a hand stamper or mechanically compacted using an electrical area vibrator on laid form panels. The maximum bulk leveller for work stage is 10 cm with up to 20 cm in two work stages.

Supplementary system elements

Description	Product name
Cover and footfall sound insulation boards	Knauf Fasoperl®-A8
	Knauf Holzfaserdämmplatte WF wood fibre board
Pre-fab floor screed units, e.g.	Knauf Brio 18 / 23
	Knauf Brio WF
	Knauf Brio MW
	Knauf Brio EPS

Load capacity for Siliperl®

Maximum installation height	Only for bulk leveller with prefab floor screed (Fasoperl®-A8 recommended)				With Fasoperl®-A8			
	30 mm		60 mm		100 mm		200 mm	
	kN/m ²	kN	kN/m ²	kN	kN/m ²	kN	kN/m ²	kN
Screed element with rebated edge 18 – 20 mm, e.g. Knauf Brio 18	2.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0
+ Additional layer of gypsum fibre board > 10 mm, e.g. Knauf Vidiwall	3.0	3.0	3.0	3.0	2.0	1.0	2.0	1.0
Screed element with rebated edge 20 – 25 mm, e.g. Knauf Brio 23	2.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0
+ Additional layer of gypsum fibre board > 10 mm, e.g. Knauf Vidiwall	3.0	3.0	3.0	3.0	2.0	1.0	2.0	1.0

Higher load combinations up to 4.0 kN/m² area load and 3 kN point load on request.

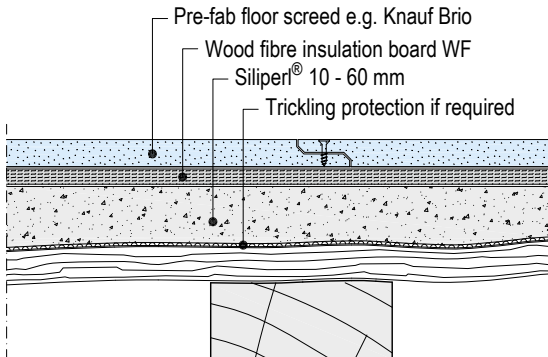
The maximum length of the stone as standard for natural stone, ceramic stoneware and tiles is 33 cm.

Floating application of parquet or laminate flooring is possible. Mosaic parquet with a chequered design and multi-level parquet can be glued directly onto pre-fab floor screeds. More detailed information can be found in Code of Practice - Coverings on pre-fab floor screeds (German) from the Bundesverband der Gipsindustrie (German Gypsum association).

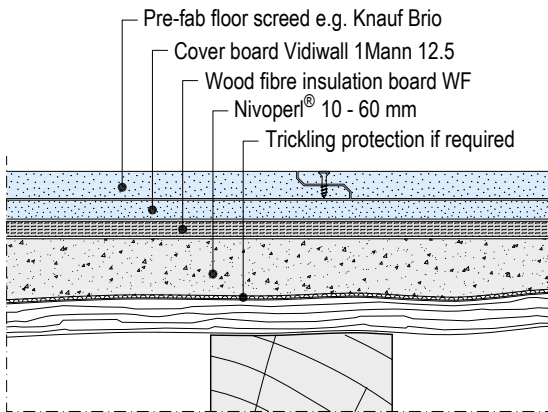
Drawings

Note Bulk leveller height always ≥ 1 cm

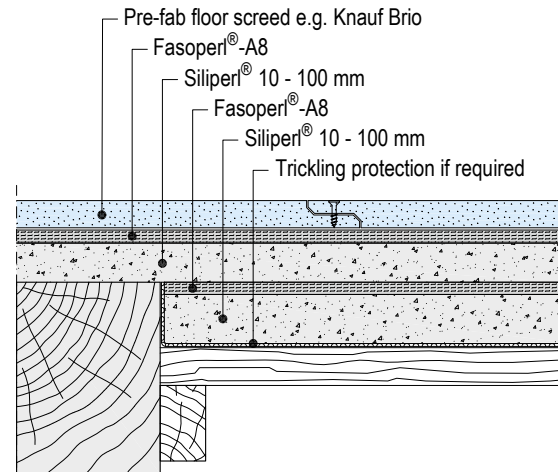
Construction above wood joist ceiling with Siliperl and Brio WF



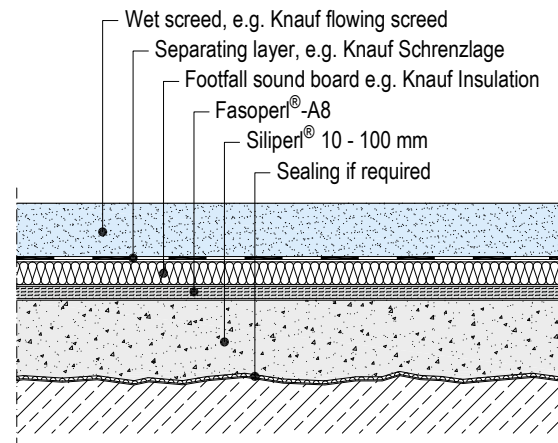
Multi-layer prefab floor screed construction over a wood joist ceiling with Siliperl® and Brio + Vidiwall for enhanced load-bearing capacity



Level with Siliperl® on load-bearing capable false ceiling



Screed construction above concrete cover



Technical data

Description	Standard	Unit	Siliperl®
Graining	–	mm	1 – 3
Bulk density ρ_s in non-compressed state	EN 13055-1	kg/m ³	approx. 660
Weight per unit area (installed)	–	kg/m ² per cm	approx. 6.9
Reaction to fire	EN 13501-1	–	A1

Material requirement and efficiency

Material	Consumption per m ² and 1 cm levelling
Siliperl®	approx. 10.5 l depending on the compression

Product range

Description	Application	Packaging unit	Material number	EAN
Siliperl®	40 l/bag	40 bags/pallet	00071644	4003352124833

Sustainability and environment

Short description	Unit	Value
Certificates	–	eco-INSTITUT



Observe safety data sheet!

For safety data sheets and CE marking see
pd.knauf.de



Videos for Knauf systems and products can be found under the following link:
www.youtube.com/knauf



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