

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the technical 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.



Plaster and Façade Systems

P364a.de

Product Data Sheet

2016-01

PU Slimtherm 026

High-performance façade insulation panel for WARM WALL Slim

Product description

High-performance façade insulation panel with square edges made of PUR rigid foam acc. to EN 13165.

Storage

Store in a dry place. Protect against direct sunlight and mechanical damage.

Quality

In compliance with EN 13165, the product is subject to initial type testing and continuous factory production control and external monitoring compliant with the insulation material approval certification is implemented. The product is compliant with all demands of the DIN 4108-10 and the Fachverband Wärmedämm-Verbundsysteme e.V. (*German external thermal insulation composite systems association*).

German National Technical Approval (abZ)

Z-33.4-1455

Field of application

Insulation panel for the Knauf WARM WALL system PU Slim in acc. with abZ (German National Technical Approval) Z-33.41-1382 and Z-33.43-1408.

Thanks to the particularly closed cell structure and the special mineral coating, even with thin insulation material thickness's a highly-efficient WARM WALL system with permanent, frictional adhesive bond between the insulation and substrate is created.

Ideal for buildings with a low roof overhang, loggias, balconies as well as reveal areas.

In the event of a fire, PU Slimtherm 026 does not melt, does not exhibit thermoplastic behaviour, glowing combustion or form flaming droplets. A fire break made of mineral wool is thus unnecessary. It can be used with ETICS, classified acc. building regulations as flammable or not easily flammable systems.

Can be applied with minimal integration depth under the ground line.

Properties and added value

- PUR acc. to EN 13165
- Application type WAP in acc. to DIN 4108-10
- Building material class B2, flammable acc. to DIN 4102-1
- Thermal conductivity $\lambda = 0.026 \text{ W/(m}\cdot\text{K)}$ from 120 mm insulation thickness
- Maximum insulation at minimum thickness
- Can also be used in the plinth area
- Easy to apply
- Can be sanded
- UV protection (approx. 2 months)
- Eco-friendly
(free from formaldehyde and acids)

Application

Substrate	Pretreatment
Unstable coatings	Remove completely
Render hollows and cavities	Remove completely and fill with a suitable render, take the drying times into account
Concrete, paint coats, old render	Clean with a high-pressure water cleaner until dust-free and allow to dry completely
Chalking or sanding surfaces	Solidify surface by applying Knauf Grundol primer

Preparation

Cover easily-soiled building components before application in accordance with Code of Practice "Abklebe- und Abdekarbeiten für Maler- und Stuckateurarbeiten" (German only) issued by the Bundesverband Ausbau und Fassade. Protect weather-exposed surfaces from precipitation and direct sunlight.

All substrates must be stable, dry, even and free of grease and dust as well as free of any residual substances that may reduce the adhesion.

Test the stability and compatibility of existing coats (old plasters and paint coats) before application of adhesive. Pretreat in accordance with the table above. Allow preliminary/primer coats to dry for at least 12 hours before continuing work. Prevent rising damp with corresponding measures.

Bonding

Bonding of the insulation panels on concrete and masonry: PU Slimtherm 026 is adhesively bonded using SM300, SM700 Pro or Duo-Kleber adhesive onto the existing substrate from the bottom to the top as a flush aligned, flat and offset-free bonded application.

The connection to the plinth can be applied efficiently and without a thermal bridge with Quix-XL Slim (see Product Data Sheet P382b.de for more information).

The adhesive is generally applied using an edge ribbon and dab bonding method. The panel has a bead of adhesive mortar applied all around the perimeter of the panel edge as well as dabs of mortar in the centre of the panel so that at least 40% of the surface has adhesive applied to it.

The adhesive mortar may also be applied to the substrate as adhesive beads (bead method). At least 60 % of the surface must be covered by mortar strips, and the spacing between the strips may not exceed 100 mm.

When adhesively bonding the insulation panel, slide the board lightly to and fro and press on (floating) to guarantee that there is sufficient adhesive bonding to the substrate.

Full surface adhesive application can also be undertaken with an even surface. For this purpose, the adhesive is applied to the entire surface of the insulation panel with a notched trowel.

Dowelling

In dependence on the respective approvals for the WARM WALL PU Slimtherm system, dowelling is required should the minimum bond strength be less than 0.08 N/mm² or the maximum wind load exceed 2.2 kN/m².

Dowelling must be applied with Schlagdübel SZ8 plus dowels surface flush or with Schraubdübel STR U 2G dowels surface flush or as a recessed installation under the mesh reinforcement in the T joints. A recessed installation of the Schraubdübel STR U 2G dowel should only be with insulation thicknesses > 100 mm. See Product Data Sheet P389e.de for further information on recessed installation.

The number of dowels is dependent on approval Z-33.4-1455 taking the DIN 1055-4 and EN 1991-1-4 in conjunction with EN 1991-1-4/NA into

Application temperature/climate

Do not apply material below +5 °C and above +30 °C. The substrate must be frost-free.

Notes

On adhesively bonded WARM WALL systems, unevenness ≤ 10 mm can be worked and with adhesively bonded and dowelled WARM WALL systems unevenness up to ≤ 20 mm can be worked.

PU Slimtherm can be applied in the splash-water area (≤ 300 mm above the ground line) and for a minimal integration depth under the ground line.

Create connections to other constructional components using suitable connection profiles or joint sealing tape as a driving-rain proof seal for the insulation material.

Avoid penetration of adhesive into the insulation panel joints. Open joints or skips up to 5 mm can be sealed using a suitable B1 filler foam.

Corner grooving is unnecessary with insulation material thicknesses ≤ 200 mm.

Avoid long drying and delay times without a mesh reinforcement as adhesively bonded insulation panels must be finished after 8 weeks at the very latest.

Sanding work should be undertaken directly before mesh reinforcement is applied. Wearing sealed protective goggles is recommended if dust develops when sanding surfaces.

The luminosity of the final coating of the external thermal insulation composite system may not have a value less than 20.

Further technical information and specifications for application and dowelling in accordance with the German National Technical Approval.

Disposal

The disposal for a fee of correctly sorted insulation materials across Germany is possible using the services of an external disposal company. See www.logex.de (in Germany) for more information.

Technical data

Description	Unit	Value	Standard
Application type	–	WAP	DIN 4108-10
Building material class	Category	B2	DIN 4102-1
Reaction to fire	Category	E	EN 13501-1
Board width	mm	500	–
Board length	mm	1000	–
Rated value of thermal conductivity λ < 80 mm thickness < 120 mm thickness \geq 120 mm thickness	W/(m·K) W/(m·K) W/(m·K)	0.028 0.027 0.026	DIN 4108-4
Behaviour of compressive stress with 10 % compression σ_{10}	kPa	\geq 100	EN 826
Long term water absorption by total immersion	Vol. %	\leq 1.5	EN 12087
Short term water absorption by partial immersion	kg/m ²	\leq 0.3	EN 1609
Water vapour resistance factor μ	–	50 – 110	–

The stated technical data were evaluated acc. to the respective test standards. Deviations under site conditions are possible.

Product range

Product description	Packaging unit		Material number
	m ² /package	Packages/pallet	
PU Slimtherm 026 thickness 20 mm	12	8	00211560
PU Slimtherm 026 thickness 30 mm	8	8	00211561
PU Slimtherm 026 thickness 40 mm	6	8	00211562
PU Slimtherm 026 thickness 50 mm	4.5	8	00211563
PU Slimtherm 026 thickness 60 mm	4	8	00211564
PU Slimtherm 026 thickness 70 mm	3.5	8	00211565
PU Slimtherm 026 thickness 80 mm	3	8	00211566
PU Slimtherm 026 thickness 90 mm	2.5	8	00211567
PU Slimtherm 026 thickness 100 mm	2	10	00211568
PU Slimtherm 026 thickness 110 mm	2	8	00211569
PU Slimtherm 026 thickness 120 mm	2	8	00211570
PU Slimtherm 026 thickness 130 mm	2	8	00211571
PU Slimtherm 026 thickness 140 mm	1.5	8	00211572
PU Slimtherm 026 thickness 160 mm	1	8	00211573
PU Slimtherm 026 thickness 180 mm	1	10	00211574
PU Slimtherm 026 thickness 200 mm	1	10	00211575
PU Slimtherm 026 thickness 220 mm	1	8	00211576
PU Slimtherm 026 thickness 240 mm	1	8	00211577
PU Slimtherm 026 thickness 260 mm	1	8	00211578
PU Slimtherm 026 thickness 280 mm	1	8	00211579
PU Slimtherm 026 thickness 300 mm	1	8	00211580

Knauf Direct
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