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.
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Plaster and Façade Systems

P367.de

Product Data Sheet 2016-12

PF Slimtherm 022

High-performance façade insulation panel for WARM WALL Slim

Product description

High-performance façade insulation panel made of phenolic resin rigid foam with fleece lamination on both sides for WARM WALL Slim. The closed cell structure assures highly efficient thermal insulation using the light insulation panels even at thin insulation material thicknesses.

Storage

Protect against moisture and direct exposure to sunlight.

Quality

The product is subject to continuous quality monitoring and complies with the EN 13166 as well as the DIN 4108-10.

National Technical Approval:

Z-23.15-1465 and Z-33.4-1526 (insulation material approvals)

Properties and added value

- Maximum insulation performance with a minimum thickness
- High thermal insulation
- Convenient format
- Easy application
- Fleece lamination on both sides

Field of application

The unique insulation properties allow the insulation material thickness to be almost halved compared to conventional insulation materials. As a result, slimmer wall constructions with the same efficiency can be achieved in existing and new buildings. Buildings with a low roof overhang, loggias, balconies as well as reveal areas are the ideal areas of application for PF Slimtherm 022 insulation material panels.

- Adhesive bonding with additional dowelling on solid, mineral substrates, e.g. plastered and unplastered masonry and concrete.

Application

Substrate and pretreatment

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 by applying Grundol primer

Preparation

Cover easily-soiled building components and/or apply a water-proof covering. Protect weather-exposed surfaces from precipitation and direct sunlight. All substrates must be stable, dry, even (permissible uneveness ≤ 20 mm/m) and free of grease and dust as well as free of any residual substances that may reduce the adhesion.

Application

Adhesive bonding of insulation panels

PF Slimtherm 022 requires a bead of SM 700 Pro adhesive mortar applied all around the perimeter of the panel edge as well as dabs of adhesive mortar in the centre of the panel so that at least 50 % of the panel has adhesive applied to it. 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.

With full surface adhesive application, the adhesive is applied to the entire surface of the insulation panel with a notched trowel, but an even substrate will be required. Apply the insulation panels flush, even and without offsets to the board joints. Subsequent sanding of the panel must be avoided due to the fleece lamination.

Note	Adhesively bonded insulation panels must have the dowels and reinforcement applied within 7 days of application at the latest.

Anchoring

Supplementary, structurally relevant dowelling of PF Slimtherm 022 is necessary. The adhesive mortar must have dried sufficiently before the dowels are applied. The number of dowels required must be calculated according to the dowel and system class, where the minimum number of dowels is 6 per square metre (m^2).

The wind suction forces result from the DIN EN 1991-1-4 (refer for example to System Data Sheet P322.de Knauf WARM WALL Energie). The arrangement of the dowels are within the surface of the insulation panel with a minimum spacing of at least 50 mm from the perimeter. The Knauf Schlagdübel SZ8 plus is the system approved dowel. Recessed dowel installation is not permissible in the installation panel.

Application temperature / climate

Do not apply with air and/or substrate temperatures below +5 °C.

Note	PF Slimtherm 022 is not suitable for the plinth and perimeter area (height approx. 300 mm). Please ensure this area is free of thermal bridges by using Sockeldämmplatte 035. Create connections to other constructional components using suitable connection profiles or joint sealing tape as a driving-rain proof seal for the insulation material.

Technical data

Description	Unit	Value	Standard
Application type	–	WAP	DIN 4108-10
Reaction to fire	Class	C-s2, d0	EN 13501-1
Building material class	Class	B2	DIN 4102-1
Rated value of thermal conductivity λ ■ Board thickness < 50 mm ■ Board thickness 50 – 120 mm ■ Board thickness > 120 mm	W/(m·K)	 0.022 0.021 0.022	EN 12938 DIN V 4108-4
Water vapour diffusion resistance μ	–	35	EN 12086
Tensile strength pendicular to the board level σ_{mt}	kPa	≥ 60	EN 1607
Thickness tolerance ■ 20 – 100 mm thick ■ > 100 – 140 mm thick	mm	 ± 2 -2 / +4	–
Tolerance of evenness	mm/board	± 3.5	–

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

Product range

Description	Board thickness mm	Panel format mm	Packaging unit m²/package	m²/pallet	Material number	EAN
PF Slimtherm 022	20	400 x 1200	12.96	77.76	00161611	4003950085512
	30		8.64	51.84	00161618	4003950085529
	40		6.72	40.32	00161619	4003950085536
	50		5.28	31.68	00161620	4003950085543
	60		4.80	57.60	00161621	4003950085550
	70		3.84	46.08	00161622	4003950085567
	80		3.36	40.32	00161623	4003950085574
	90		2.88	34.56	00161624	4003950085581
	100				00161625	4003950085598
	120		2.40	28.80	00161626	4003950085604
	140		1.92	23.04	00178268	4003950086830

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High-performance façade insulation panel for WARM WALL Slim

WARM WALL Slim system components

WARM WALL Slim with mineral or mineral / organic render system	
Plinth application	SM 700 Pro / Sockeldämmplatte 035 plinth insulation board / Sockel-Dicht / Sockel-SM Pro
Plinth connection	Sockeldämmplatte plinth insulation board, Sockel-Abschlussprofil Peri plinth profile
Adhesive mortar	SM 700 Pro
Insulation material	PF Slimtherm 022
Dowels	Schlagdübel SZ8 plus dowel
Reinforcement layer	SM 700 Pro (layer thickness 6 – 8 mm), Gewebeeckwinkel 100/150 mm mesh corner angles, Gewebeeckpfeile mesh corner arrows, Armiergewebe 5x5 mm reinforcement mesh
Primers	Quarzgrund primer / Isogrund primer
Render finish	Conni S / Conni R / Noblo[1)]
Paint coat (recommended)	Autol / Fassadol / Minerol

Please observe the Product Data Sheets when applying and working with the products stated here.
Luminosity finish coat/paint coat ≥ 30
[1)] Double layer of reinforcement mesh required

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