



## TECHNICAL DATA SHEET

# EPS-GRAU 034 WDV

## 1. PRODUCT DESCRIPTION

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Grey expanded EPS rigid foam according to DIN EN 13163.

## 2. FIELD OF APPLICATION

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Facade insulation boards for KEIM external thermal insulation composite systems according to system approval: Z-33.43-185; Z-33.4.1-45; Z-33.47-727; Z-33.46-1187

Generally approved by the building authorities for: exterior walls; window and door reveals.

Suitable for: Masonry or concrete, rendered and unrendered; panel material in timber construction; ETICS upgrade system.

Application type according to DIN 4108-10 WAP.

The complete ETIC system is flame-retardant B1 or normally flammable B2 according to DIN 4102. Permissible building height according to the State Building Code.

Not suitable for: horizontal and inclined surfaces exposed to weathering; cold self-adhesive plastic membranes; metallic substrates; substrates with salt efflorescences; saponifiable existing substrates.

## 3. PRODUCT PROPERTIES

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- with improved heat protection
- especially economical
- HBCD-free (with new flame retardant)
- free of CFC, CHC and aromatic hydrocarbons
- fire behaviour: hardly inflammable B1 according to 4102
- dimensionally accurate and non-shrinking
- form- and pressure-stable
- resistant to aging
- The insulation panels comply with the high standards of the VDPM e.V. (association for insulation systems, renders and mortars)
- Externally monitored by Forschungsinstitut für Wärmeschutz e.V. München

### MATERIAL CHARACTERISTICS:

- CE marking code:	EPS-EN 13163-L3-W3-T2-S5-P5-CS(10)150-BS200-DS(N)2-DS(70,-)3-DLT(2)5-WL(T)3-WD(V)5
- Rated value of thermal conductivity:	0.034 W/mK
- Nominal value of thermal conductivity $\lambda_D$ :	0.033 W/mK
- Panel size:	1000 x 500 mm
- Panel thickness:	20 - 400 mm
- Dimensional stability at normal temperature:	DS (N) 2 $\pm$ 0,2 %
- Irreversible length change:	$\leq$ 0,15 %
- Thickness tolerance:	T2 $\pm$ 1 mm
- Width tolerance:	W2 $\pm$ 2 mm
- Length tolerance:	L2 $\pm$ 2 mm
- Squareness:	S2 $\pm$ 2 mm/m
- Planarity:	P $\pm$ 3 mm/m
- Colour shade:	grey

**4. APPLICATION INSTRUCTIONS****SUBSTRATE PREPARATION:**

The permanent compatibility of any existing coatings with the adhesive mortar must be examined by an expert. The substrate must be strong, dry, clean, sound and free from adhesion-reducing residues. Strongly sanding or unevenly absorbent surfaces should be primed with Indulqua primer. Observe the Technical Data Sheet of the primer with regard to execution and dilution.

**APPLICATION CONDITIONS:**

Ambient and substrate temperature during application and drying from  $\geq 5\text{ °C}$  to  $\leq 30\text{ °C}$ . Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from direct sun, wind and rain during and after application.

**APPLICATION:**

Cut to size with insulation knife or hot wire cutter.

**GLUING:**

The insulation panels are butted tightly and glued in a bond from bottom to top. Apply the appropriate adhesive mortar to the insulation panels using the bead-and-dot method or over the entire surface. Push the boards into place. At the edges of the building, the insulation panels are glued offset. Apply the system's adhesive mortar to the insulation panels using the bead-and-dot method, ensuring an adhesion of min. 40 %. On panel materials in wood construction, the insulation panels are glued over the entire surface with the adhesive filler Klebespachtel. For this purpose, the adhesive filler is applied to the substrate or to the insulation panels with a notched trowel. Immediately after applying the adhesive, the insulation panels must be glued to the substrate. General instruction with regard to gluing: Do not apply adhesive to the panel joints. Closing of unavoidable defects and joints up to 5 mm wide with Iso Top Thermfoam B1 is permissible. Do not create an insulation panel joint over a joint in the substrate underneath.

**DOWELING:**

Check the adhesion of the insulation panels after at least 3 days. Insulation panels that are not bonded or damaged must be replaced. Anchoring is carried out in glued and dowelled ETIC systems with generally approved ETICS fasteners according to DIN EN 1991-1-4/NA. The required fastener quantity depends on the building height and the respective wind zone in which the object is located. In only glued ETIC systems, constructive anchoring with suitable ETICS anchors is permissible. For further information, please refer to our ETICS Technical Guide, Chapter #8, ETICS Wind Suction Loads.

**REINFORCEMENT:**

After a sufficient setting time of the adhesive, apply the mixed, system-specific reinforcing mortar evenly to the insulation panels, preferably with a 10 mm toothed trowel. Embed the system-specific Glasfaser-Gittermatte (glass fibre mesh), overlap the edges by 10 cm and fill wet-in-wet with system-specific reinforcing mortar. The system-specific Glasfaser-Gittermatte should be embedded in the middle (layer thicknesses up to 6 mm) or in the upper third (layer thicknesses from 6 mm). Thickness of the reinforcing layer depends on the respective system approval and can be in the range of max. 3 - 15 mm.

**5. PACKAGING / TECHNICAL DATA**

Panel size [mm]	Panel thickness [mm]	edge	Rated value thermal conductivity [W/mK]	m <sup>2</sup> per bundle
1000 x 500	40	dull rabet groove and tongue	0,034	6.0
1000 x 500	50	dull rabet groove and tongue	0,034	4.5

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Panel size [mm]	Panel thickness [mm]	edge	Rated value thermal conductivity [W/mK]	m <sup>2</sup> per bundle
1000 x 500	60	dull rabbet groove and tongue	0,034	4.0
1000 x 500	70-80	dull rabbet groove and tongue	0,034	3.0
1000 x 500	90	dull rabbet groove and tongue	0,034	2.5
1000 x 500	100-120	dull rabbet groove and tongue	0,034	2.0
1000 x 500	130-160	dull rabbet groove and tongue	0,034	1.5
1000 x 500	170-300	dull rabbet groove and tongue	0,034	1.0
1000 x 500	310-400	dull rabbet groove and tongue	0,034	0.5

### PACKAGING / TECHNICAL DATA ADDITIONAL INFORMATION:

Edge formation step seam and tongue and groove on request

## 6. STORAGE

max. storage time	Storage conditions
no maximum storage time	dry protected from heat and direct sun.

## 7. DISPOSAL

### EC WASTE CODE:

Waste code: 17 06 04

### 8. SAFETY INSTRUCTIONS

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no particular indications

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.