Data Sheet 2
Facade Systems with PEKATEX®-Substructures

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Structure of the Facade

PEKATEX®-Substructures are laid in a layer of adhesive mortar covering and , if necessary, are additionally fixed to the wall by mechanical fixing elements free of any thermal- and sound-bridges. A mineral undercoat is applied to the substructure.

As finish a mineral rendering with different textures or ceramic tile or brick-slab cladding (the two latters ones always **to be vented**) can be used. The maximum permitted weight for the basic and the final layer should not exceed 88 kg/m².

Certificates by the German Building Certification Authority (DIBt) and German Industrial Standards

PEKATEX® 49 - 1 mineral plaster facade, without structural venting
PEKATEX® 50 - 1 mineral plaster facade, **with structural venting**
PEKATEX® 50 - 2 Facade made of ceramic tiles or brick slabs, **with structural venting**

Certification **DIBt Z - 33.45 - 238,** Quality Control and Certification by the Material Control Authority Northrhine-Westfalia

Building Materials			Requirements	Remarks	
PEKATEX® (compare to data sheet 1)		substructure • with insulation • with insulation and venting duct	 DIBt Z - 23.11 - 1049 DIBt Z - 23.11 - 1050	only for facades made of plaster for facades made of plaster and tiles	
Adhesive Mortar		hydraulically hardening thin-bed mortar	DIN 18156 - 2 (DIN 18156 - M)	adhesion to the full surface	
Reinforced Undercoat	Mortars for undercoat	fabric dry mortar • mortar group P II concerning facades made of plaster • mortar group P III concerning facades made of tiles/slabs	DIN 18557; DIN 18550 - 1, - 2; DIBt Z - 33.45 - 238	thickness of layer ≥ 12 mm	total thickness of a mineral plaster facade ≥ 20 mm; consider also max. permitted weight
	Reinforcement	glass fibre fabric	DIBt Z - 33.45 - 238	mesh grid approx. 8 mm x 8 mm	
Finish	1. Rendering	fabric dry mortar • mortar group P Ic	DIN 18557; DIN 18550 - 1, - 2; DIBt Z - 33.45 - 238	all common textures	
	2. Tiles / slabs	ceramic tiles brick slabs quarry tiles	DIN 18515 - 1	thickness ≤ 2,0 cm size ≤ 30 cm x 40 cm	
Accessories		screws and dowels PKT-fixing clamps profiles	Cerficate DIBt Z - 33.45 - 238 at least DIN 4102 - B2	depending on project	

Fixing (no thermal- and sound bridges)

Weight of undercoat and finish g [kg / m²]	Height above ground H [m]	Fixings	Number of dowels	Note
g ≤ 0.68	H ≤ 20	adhesive mortar		adhesive mortar and dowels always to be used: • with heights above ground level H > 20 m • with non-sufficient load-bearing and absorband surfaces
0,68 < g ≤ 0.88	H ≤ 100	adhesive mortar+dowels	refer to Certificate DIBt Z - 33.45 - 238	

Features

Facades with PEKATEX®

- are non-combustible according to DIN 4102 - 1 (Building Material Class A2)
- sustain a shear load of > 30,000 N / m² (> 3.0 t / m²)
- sustain a tensile load of > 35,000 N / m² (> 3.5 t / m²)
- are shock resistant and shock proof
- have exellent thermal insulation properities; thickness of the insulating material up to 120 mm, thermal conductivity group 040 and 035
- lead to increased sound insulation, sound insulation performance R'w,R according to DIN 4109 can be increased by 3 dB
- are permeable to water vapour and ensure dry building substances because of the use of mineral materials and **structural venting**
- support architectural creativity and design, usage has been authorised up to a height of 100 m above ground level

PEKATEX GmbH, Max-Planck-Straße 5-7, D-53501 Grafschaft-Gelsdorf, Phone +49 (0) 2225 / 888 01-0, Fax +49 (0) 2225 / 888 01-16