

BRAVOLL® PTH-S**Picture****Description**

Screw-in anchor with steel screw for mechanical fixing of the most common insulation materials, suitable for ETICS, for surface and countersunk installation.

Technical data

European Technical Approval:	ETA 08/0267
Technical guideline:	ETAG 014
Use category acc. to ETAG 014:	A - B - C - D - E
Washer diameter d_p :	60 mm
Drilling diameter d_o :	8 mm
Minimum embedment h_{nom} :	25/65 ¹⁾ mm
Minimum drilling depth h_1 :	actual embedment + 10 - 15 mm ²⁾
Setting tool:	BRAVOLL MPS (TORX® T30)
Point thermal transmission χ :	0.002 W/K
Plate resistance:	2.6kN
Plate stiffness:	0.9 kN/mm
Anchor body material:	shock-resistant polypropylene
Screw material:	Galvanized steel with plastic head

¹⁾ Values after the slash are valid for aerated concrete.

²⁾ Values should be 20mm higher for countersunk application.

Features

- Universal premium anchor – approved and certified for all types of building materials (acc. to ETAG)
- High pull-out values – Optimal anchor quantity per m²
- Can be installed flush or recessed thanks to the double-sided setting tool BRAVOLL MPS
- Galvanized steel screw with plastic head moulding for limited thermal bridge
- Low embedment depth and diameter 8 drilling for quicker setting
- Quick and easy setting through the insulation material
- Pre-assembled anchor for faster installation
- Very wide length range (from 95 do 475mm) for fixing high thicknesses

Anchor type	Code (pc)	Total length L_a (mm)	Max insulation thickness h_D (mm)	Max insulation thickness h_D (mm)	Max insulation thickness h_D (mm)	Max insulation thickness h_D (mm)	Qty per carton (pcs)
			new ¹⁾	renovation ²⁾	new ³⁾	renovation ⁴⁾	
Use categories:			A - B - C - D		E		
PTH-S 60/8-95	10588	95	60	40	-	-	200
PTH-S 60/8-115	10589	115	80	60	40	-	200
PTH-S 60/8-135	10590	135	100	80	60	40	200
PTH-S 60/8-155	10591	155	120	100	80	60	200
PTH-S 60/8-175	10592	175	140	120	100	80	100
PTH-S 60/8-195	10593	195	160	140	120	100	100
PTH-S 60/8-215	10594	215	180	160	140	120	100
PTH-S 60/8-235	10595	235	200	180	160	140	100
PTH-S 60/8-255	10596	255	220	200	180	160	100
PTH-S 60/8-275	11194	275	240	220	200	180	100
PTH-S 60/8-295	11492	295	260	240	220	200	100
PTH-S 60/8-315	11494	315	280	260	240	220	100
PTH-S 60/8-335	11495	335	300	280	260	240	100
PTH-S 60/8-355	11496	355	320	300	280	260	100
PTH-S 60/8-375	11747	375	340	320	300	280	100
PTH-S 60/8-395	11748	395	360	340	320	300	100
PTH-S 60/8-415	11749	415	380	360	340	320	100
PTH-S 60/8-435	11750	435	400	380	360	340	100
PTH-S 60/8-455	11751	455	420	400	380	360	100
PTH-S 60/8-475	11752	475	440	420	400	380	100

¹⁾ For 25mm embedment and 10 mm of glue (a_2)

²⁾ For 25mm embedment, 20mm old render (a_1) and 10 mm of glue (a_2)

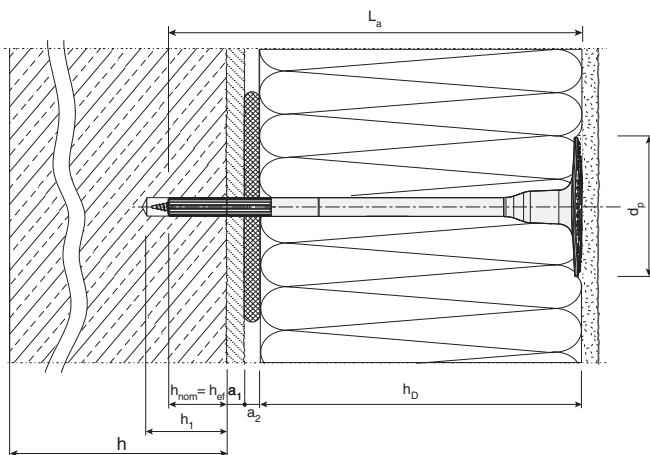
³⁾ For 65mm embedment and 10 mm of glue (a_2)

⁴⁾ For 65mm embedment, 20mm old render (a_1) and 10 mm of glue (a_2)

Technical data

BRAVOLL® anchor type	PTH-S
Base materials	Characteristic load resistance N_{RK} (kN)
Concrete C 12/15 acc. to EN 206-1	1.5
Concrete C 16/20 - C 50/60 acc. to EN 206-1	1.5
Solid clay bricks according to EN 771-1	1.5
Solid sand-lime bricks according to EN 771-2	1.2
Lightweight concrete hollow blocks acc. to EN 771-3	1.5
Lightweight concrete with aerated aggregate acc. to EN 1520 (LAC)	1.0
Hollow clay bricks acc. to EN 771-1	0.75
Vertically perforated clay bricks acc. to Önorm B 6124	0.6
Aerated concrete P2-400 acc. to EN 771-4	0.6
Minimum edge distance c_{min} (mm)	100
Minimum spacing s_{min} (mm)	100
Minimum thickness of member h (mm)	100

Drawing



Anchor length calculation

$$L_a \geq h_D + h_{nom} + \max a_1 + \max a_2$$

d_p - washer diameter

L_a - anchor length

h_D - insulation material thickness

h_{nom} - minimum embedment

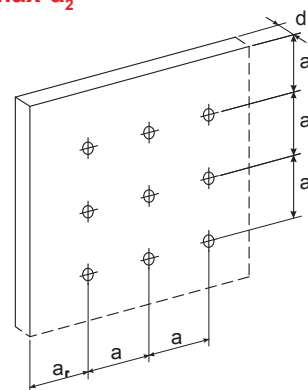
h_{ef} - effective embedment

h_1 - minimum drilling depth

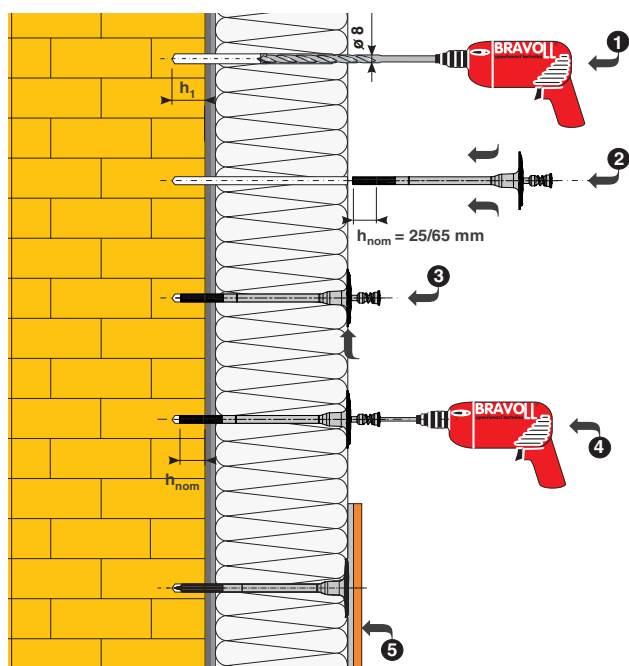
h - base material thickness

a_1 - render thickness

a_2 - gluing mortar thickness + facade surface flatness tolerance



Surface installation



- Insert the anchor into the predrilled hole, ensure the washer is in contact with the insulation material. If necessary, slightly push the anchor with the screwdriver.
- If the anchor setting is difficult, it probably means that the used drill bit is worn (the drilled diameter is too small or the dust remains inside the hole). It is then necessary to use a new drill bit or better clean the hole. Hollow bricks and cellular concrete should only be drilled without hammering (ideally with a specially designed drill bit).
- The installation should be performed with an electric screwdriver (maximum 350 rpm, ideally with electronic regulator) and the setting tool BRAVOLL MPS (Torx 30).
- Stop screwing when the washer becomes flush or between 0 and 2 mm below the surface of the insulation material.
- Within 6 weeks the anchors should be covered by the other ETICS components (for UV protection).
- When leveling out surface unevenness, make sure to respect the minimum embedment.
- Installation must be done at a temperature $>0^{\circ}\text{C}$.