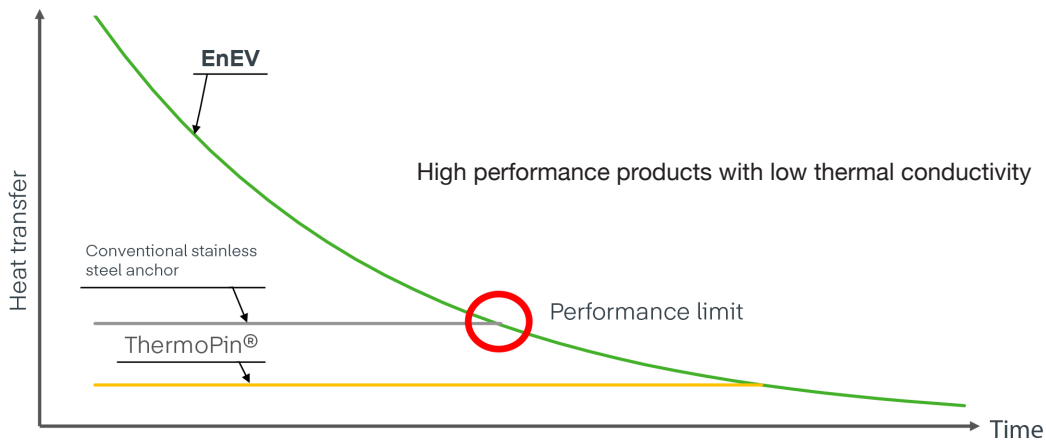


# PSA THERMOPIN

Securing anchor system to core-insulated concrete panels

## INCREASING REQUIREMENTS ON THERMAL INSULATION



## SECURING ANCHOR SYSTEM

### What is ThermoPin®?

A securing anchor system for sandwich walls and core-insulated double walls made of glass fibre reinforced plastic (GFRP). The application of ThermoPin® prevents the formation of thermal bridges and enables economical installation.



#### ThermoPin® Type H

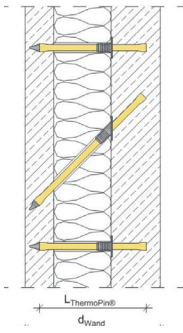
- Horizontal anchor
- Length from 180mm to 420mm
- Capacity to withstand horizontal loads: fresh-concrete pressure, wind pressure, temperature, earth pressure



#### ThermoPin® Type D

- Diagonal anchor
- Length from 250mm to 510mm
- Capacity to withstand vertical loads
- Load transfer of first layer from dead load and all vertical loads

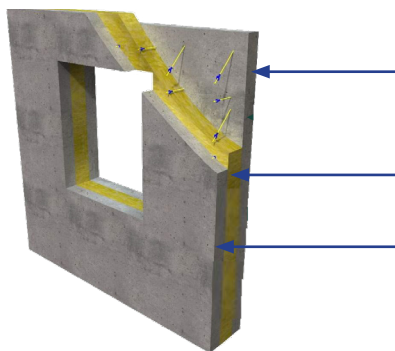
## THERMOPIN® FOR SANDWICH WALLS - PROPERTIES



### Advantages

- Completely made of GFRP
- Wall thickness possible for 20cm
- Variable dimensions available: standard lengths and special lengths
- Plastic ring ensures high-quality during installation and prevents moisture penetration
- The cap facilitates installation
- High exposed concrete quality by ensuring concrete cover

## THERMOPIN® - APPLICATION LIMITS



Embedment depth: 40-120mm static determination possible

### Thickness of bearing shell

- 100mm sandwich wall
- 140mm double wall

### Thickness of insulation shell

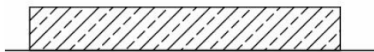
- 50-200mm

### Thickness of facing shell

- 50-120mm

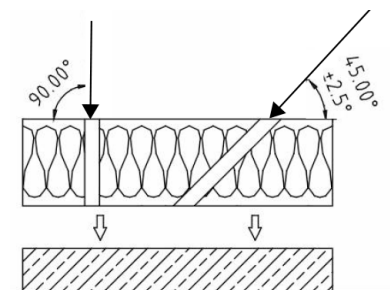
## THERMOPIN® - PRODUCTION PROCESS OF SANDWICH WALL

1



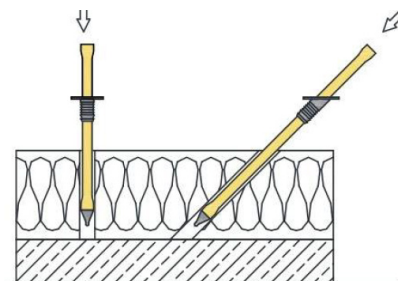
Production of First Layer

2



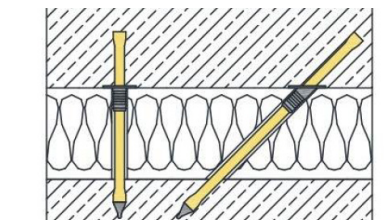
Production of First Layer

3



Press in Thermopins and Compact

4

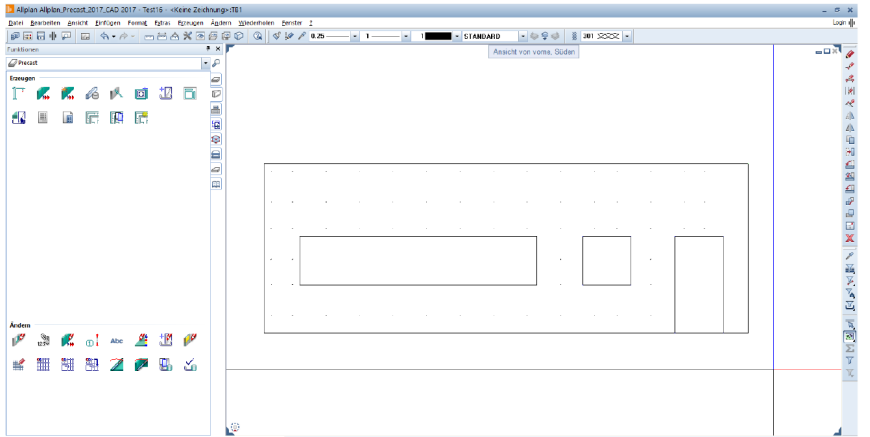


Production of Supporting Shell

NOTE: Pushing of Thermopins eliminates alignment issues and allows flexibility in avoiding any openings/reinforcement within the panels.

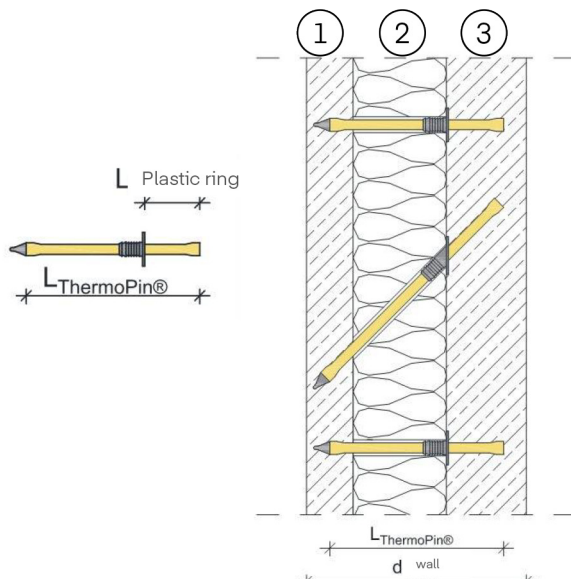


## THERMOPIN® - CALCULATION TOOL FOR PLANBAR



### Advantages

- Software-integrated solution
- Automated positioning of the ThermoPins
- Fast processing possible



1 First layer D = 70mm

2 Insulating layer D=120mm

3 Supporting shell D=200mm

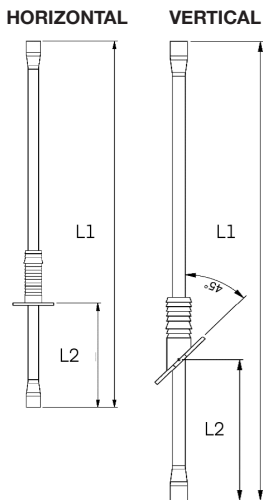
Total thickness D=390mm

First layer suspended - approx 500m<sup>2</sup>

ThermoPin® H250\_80 = approx 2000 pc

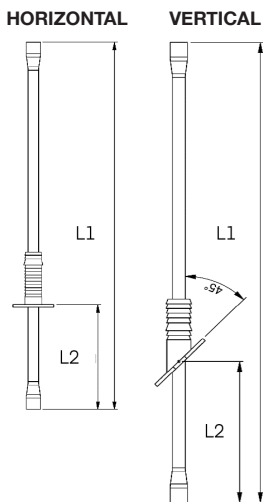
ThermoPin® D350\_110 = approx 500 pc

## THERMOPIN® - ITEM OVERVIEW 1/2



ITEM NO.	ITEM	DESCRIPTION
3009177	ThermoPin® H180_80	L1: 180mm; L2: 80mm; horizontal
3009170	ThermoPin® H210_80	L1: 210mm; L2: 80mm; horizontal
3009173	ThermoPin® H250_80	L1: 250mm; L2: 80mm; horizontal
3009288	ThermoPin® H280_180	L1: 280mm; L2: 180mm; horizontal
3009171	ThermoPin® H290_80	L1: 290mm; L2: 80mm; horizontal
3009238	ThermoPin® H340_160	L1: 340mm; L2: 160mm; horizontal
3009236	ThermoPin® H340_180	L1: 340mm; L2: 180mm; horizontal
3009234	ThermoPin® H340_200	L1: 340mm; L2: 200mm; horizontal
3009232	ThermoPin® H340_220	L1: 340mm; L2: 220mm; horizontal
3009287	ThermoPin® H380_180	L1: 380mm; L2: 180mm; horizontal
3009249	ThermoPin® H380_200	L1: 380mm; L2: 200mm; horizontal
3009247	ThermoPin® H380_220	L1: 380mm; L2: 220mm; horizontal
3009245	ThermoPin® H380_240	L1: 380mm; L2: 240mm; horizontal
3009251	ThermoPin® H420_240	L1: 420mm; L2: 240mm; horizontal
3009250	ThermoPin® H420_280	L1: 420mm; L2: 280mm; horizontal

## THERMOPIN® - ITEM OVERVIEW 2/2



ITEM NO.	ITEM	DESCRIPTION
3009189	ThermoPin® D250_110	L1: 250mm; L2: 110mm; horizontal
3009181	ThermoPin® D295_110	L1: 295mm; L2: 110mm; horizontal
3009314	ThermoPin® D325_185	L1: 325mm; L2: 185mm; horizontal
3009187	ThermoPin® D350_110	L1: 350mm; L2: 110mm; horizontal
3009256	ThermoPin® D395_140	L1: 395mm; L2: 140mm; horizontal
3009255	ThermoPin® D395_170	L1: 395mm; L2: 170mm; horizontal
3009254	ThermoPin® D395_200	L1: 395mm; L2: 200mm; horizontal
3009253	ThermoPin® D395_225	L1: 395mm; L2: 225mm; horizontal
3009185	ThermoPin® D410_110	L1: 410mm; L2: 110mm; horizontal
3009315	ThermoPin® D455_170	L1: 455mm; L2: 170mm; horizontal
3009271	ThermoPin® D455_200	L1: 455mm; L2: 200mm; horizontal
3009270	ThermoPin® D455_225	L1: 455mm; L2: 225mm; horizontal
3009269	ThermoPin® D455_225	L1: 455mm; L2: 225mm; horizontal
3009273	ThermoPin® D510_255	L1: 510mm; L2: 255mm; horizontal
3009251	ThermoPin® H420_240	L1: 420mm; L2: 240mm; horizontal

