



# BOERNER TOP 50

## STONE WOOL

### PRODUCT DESCRIPTION

BOERNER TOP 50 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

### APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with BOERNER BASE slabs or in other single- or multi-layer insulation systems.



THICKNESS RANGE **20 - 160 [mm]**

### DECLARED PARAMETERS

| Parameter                                                               | Symbol      | Unit                 | Value      | Method                                                |
|-------------------------------------------------------------------------|-------------|----------------------|------------|-------------------------------------------------------|
| Declared thermal conductivity                                           | $\lambda_D$ | W/mK                 | 0,039      | EN 12667, EN 12939                                    |
| Thickness tolerance class                                               | T           | -                    | T5         | EN 823                                                |
| Dimensional stability under certain temperature and humidity conditions | DS(70,90)   | %                    | $\leq 1$   | EN 1604                                               |
| Compressive stress at 10% deformation                                   | CS(10)      | kPa                  | $\geq 50$  | EN 826                                                |
| Tensile strength perpendicular to the faces                             | TR          | kPa                  | $\geq 15$  | EN 1607                                               |
| Point load at 5 mm deformation <50mm                                    | PL(5)       | N                    | $\geq 550$ | EN 12430                                              |
| Point load at 5 mm deformation $\geq 50$ mm                             | PL(5)       | N                    | $\geq 650$ | EN 12430                                              |
| Air flow resistivity                                                    | AFr         | kPa·s/m <sup>2</sup> | NPD        | EN 9053-1                                             |
| Short-term water absorption                                             | WS          | kg/m <sup>2</sup>    | $\leq 1$   | EN 29767                                              |
| Long-term water absorption                                              | WL(P)       | kg/m <sup>2</sup>    | $\leq 3$   | EN 16535                                              |
| Water vapor diffusion resistance coefficient                            | MU          | -                    | MU1        | EN 13162+A1                                           |
| Reaction to fire                                                        | RtF         | -                    | A1         | EN 13501-1, EN 15715<br>NPD - No Performance Declared |

### DECLARED THERMAL RESISTANCE

| Value of declared thermal resistance $R_D$ |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Thickness [mm]                             | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150  |
| $R_D$ [m <sup>2</sup> K/W]                 | -    | 0,50 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,05 | 2,30 | 2,55 | 2,80 | 3,05 | 3,30 | 3,55 | 3,80 |
| Thickness [mm]                             | 160  | 170  | 180  | 190  | 200  | 210  | 220  | 230  | 240  | 250  | 260  | 270  | 280  | 290  | 300  |
| $R_D$ [m <sup>2</sup> K/W]                 | 4,10 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

**STANDARD DIMENSIONS AND PACKAGING**

| Code     | Full name and dimensions |               | Pallet format | Pallet         |                |      |      | Pack           |                |      |
|----------|--------------------------|---------------|---------------|----------------|----------------|------|------|----------------|----------------|------|
|          |                          |               | mm            | m <sup>3</sup> | m <sup>2</sup> | slab | pack | m <sup>3</sup> | m <sup>2</sup> | slab |
| BR700823 | BOERNER TOP 50           | 1200x2400x20  | pillar        | 3,4560         | 172,80         | 60   | 0    | 0,0000         | 0,00           | 0    |
| BR700824 | BOERNER TOP 50           | 1200x2400x30  | pillar        | 3,4560         | 115,20         | 40   | 0    | 0,0000         | 0,00           | 0    |
| BR700825 | BOERNER TOP 50           | 1200x2400x40  | pillar        | 3,4560         | 86,40          | 30   | 0    | 0,0000         | 0,00           | 0    |
| BR700826 | BOERNER TOP 50           | 1200x2400x50  | pillar        | 3,4560         | 69,12          | 24   | 0    | 0,0000         | 0,00           | 0    |
| BR700827 | BOERNER TOP 50           | 1200x2400x60  | pillar        | 3,4560         | 57,60          | 20   | 0    | 0,0000         | 0,00           | 0    |
| BR700828 | BOERNER TOP 50           | 1200x2400x70  | pillar        | 3,2256         | 46,08          | 16   | 0    | 0,0000         | 0,00           | 0    |
| BR700829 | BOERNER TOP 50           | 1200x2400x80  | pillar        | 3,4560         | 43,20          | 15   | 0    | 0,0000         | 0,00           | 0    |
| BR700830 | BOERNER TOP 50           | 1200x2400x90  | pillar        | 3,1104         | 34,56          | 12   | 0    | 0,0000         | 0,00           | 0    |
| BR700831 | BOERNER TOP 50           | 1200x2400x100 | pillar        | 3,4560         | 34,56          | 12   | 0    | 0,0000         | 0,00           | 0    |
| BR700832 | BOERNER TOP 50           | 1200x2400x110 | pillar        | 3,1680         | 28,80          | 10   | 0    | 0,0000         | 0,00           | 0    |
| BR700833 | BOERNER TOP 50           | 1200x2400x120 | pillar        | 3,4560         | 28,80          | 10   | 0    | 0,0000         | 0,00           | 0    |
| BR700834 | BOERNER TOP 50           | 1200x2400x130 | pillar        | 2,9952         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR700835 | BOERNER TOP 50           | 1200x2400x140 | pillar        | 3,2256         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR700836 | BOERNER TOP 50           | 1200x2400x150 | pillar        | 3,4560         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR700837 | BOERNER TOP 50           | 1200x2400x160 | pillar        | 2,7648         | 17,28          | 6    | 0    | 0,0000         | 0,00           | 0    |

**LOGISTICS INFORMATION**

Standard packaging on pillars. Full truck loading: 22 standard pallets.

Packing on wooden pallets (22 pallets and 11 high pallets marked with H2.6) to be confirmed in the logistics department

**STORAGE**

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

**ADDITIONAL INDICATIONS ON THE LABEL**

**H2,6** - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

**(PILLAR)** - product on a stone wool base instead of a wooden pallet

**(X slabs)** - number of slabs in the pack



Certificate number: **1454-CPR-0292**

Designation code for thickness products <50mm

**MW-EN 13162-T5-DS(70,90)-CS(10)50-TR15-PL(5)550-WS-WL(P)-MU1**

Designation code for thickness products ≥50mm

**MW-EN 13162-T5-DS(70,90)-CS(10)50-TR15-PL(5)650-WS-WL(P)-MU1**

Declaration of performance no: **BRI/FR/BRT50/2023\_04**



# BOERNER TOP 60

## STONE WOOL

### PRODUCT DESCRIPTION

BOERNER TOP 60 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

### APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with BOERNER BASE slabs or in other single- or multi-layer insulation systems.



THICKNESS RANGE **20 - 160 [mm]**

### DECLARED PARAMETERS

| Parameter                                                               | Symbol      | Unit                 | Value      | Method                                                |
|-------------------------------------------------------------------------|-------------|----------------------|------------|-------------------------------------------------------|
| Declared thermal conductivity                                           | $\lambda_D$ | W/mK                 | 0,039      | EN 12667, EN 12939                                    |
| Thickness tolerance class                                               | T           | -                    | T5         | EN 823                                                |
| Dimensional stability under certain temperature and humidity conditions | DS(70,90)   | %                    | $\leq 1$   | EN 1604                                               |
| Compressive stress at 10% deformation                                   | CS(10)      | kPa                  | $\geq 60$  | EN 826                                                |
| Tensile strength perpendicular to the faces                             | TR          | kPa                  | $\geq 15$  | EN 1607                                               |
| Point load at 5 mm deformation <50mm                                    | PL(5)       | N                    | $\geq 500$ | EN 12430                                              |
| Point load at 5 mm deformation $\geq 50$ mm                             | PL(5)       | N                    | $\geq 700$ | EN 12430                                              |
| Air flow resistivity                                                    | AFr         | kPa·s/m <sup>2</sup> | NPD        | EN 9053-1                                             |
| Short-term water absorption                                             | WS          | kg/m <sup>2</sup>    | $\leq 1$   | EN 29767                                              |
| Long-term water absorption                                              | WL(P)       | kg/m <sup>2</sup>    | $\leq 3$   | EN 16535                                              |
| Water vapor diffusion resistance coefficient                            | MU          | -                    | MU1        | EN 13162+A1                                           |
| Reaction to fire                                                        | Rf          | -                    | A1         | EN 13501-1, EN 15715<br>NPD - No Performance Declared |

### DECLARED THERMAL REISTANCE

| Value of declared thermal resistance $R_D$ |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Thickness [mm]                             | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150  |
| $R_D$ [m <sup>2</sup> K/W]                 | -    | 0,50 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,05 | 2,30 | 2,55 | 2,80 | 3,05 | 3,30 | 3,55 | 3,80 |
| Thickness [mm]                             | 160  | 170  | 180  | 190  | 200  | 210  | 220  | 230  | 240  | 250  | 260  | 270  | 280  | 290  | 300  |
| $R_D$ [m <sup>2</sup> K/W]                 | 4,10 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

**STANDARD DIMENSIONS AND PACKAGING**

| Code     | Full name and dimensions |               | Pallet format | Pallet         |                |      |      | Pack           |                |      |
|----------|--------------------------|---------------|---------------|----------------|----------------|------|------|----------------|----------------|------|
|          |                          |               | mm            | m <sup>3</sup> | m <sup>2</sup> | slab | pack | m <sup>3</sup> | m <sup>2</sup> | slab |
| BR700928 | BOERNER TOP 60           | 1200x2400x20  | pillar        | 3,4560         | 172,80         | 60   | 0    | 0,0000         | 0,00           | 0    |
| BR700929 | BOERNER TOP 60           | 1200x2400x30  | pillar        | 3,4560         | 115,20         | 40   | 0    | 0,0000         | 0,00           | 0    |
| BR700930 | BOERNER TOP 60           | 1200x2400x40  | pillar        | 3,4560         | 86,40          | 30   | 0    | 0,0000         | 0,00           | 0    |
| BR700931 | BOERNER TOP 60           | 1200x2400x50  | pillar        | 3,4560         | 69,12          | 24   | 0    | 0,0000         | 0,00           | 0    |
| BR700932 | BOERNER TOP 60           | 1200x2400x60  | pillar        | 3,4560         | 57,60          | 20   | 0    | 0,0000         | 0,00           | 0    |
| BR700933 | BOERNER TOP 60           | 1200x2400x70  | pillar        | 3,2256         | 46,08          | 16   | 0    | 0,0000         | 0,00           | 0    |
| BR700934 | BOERNER TOP 60           | 1200x2400x80  | pillar        | 3,4560         | 43,20          | 15   | 0    | 0,0000         | 0,00           | 0    |
| BR700935 | BOERNER TOP 60           | 1200x2400x90  | pillar        | 3,1104         | 34,56          | 12   | 0    | 0,0000         | 0,00           | 0    |
| BR700936 | BOERNER TOP 60           | 1200x2400x100 | pillar        | 3,4560         | 34,56          | 12   | 0    | 0,0000         | 0,00           | 0    |
| BR700937 | BOERNER TOP 60           | 1200x2400x110 | pillar        | 3,1680         | 28,80          | 10   | 0    | 0,0000         | 0,00           | 0    |
| BR700938 | BOERNER TOP 60           | 1200x2400x120 | pillar        | 3,4560         | 28,80          | 10   | 0    | 0,0000         | 0,00           | 0    |
| BR700939 | BOERNER TOP 60           | 1200x2400x130 | pillar        | 2,9952         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR700940 | BOERNER TOP 60           | 1200x2400x140 | pillar        | 3,2256         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR700941 | BOERNER TOP 60           | 1200x2400x150 | pillar        | 3,4560         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR700942 | BOERNER TOP 60           | 1200x2400x160 | pillar        | 2,7648         | 17,28          | 6    | 0    | 0,0000         | 0,00           | 0    |

**LOGISTICS INFORMATION**

Standard packaging on pillars. Full truck loading: 22 standard pallets.

Packing on wooden pallets (22 pallets and 11 high pallets marked with H2.6) to be confirmed in the logistics department

**STORAGE**

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

**ADDITIONAL INDICATIONS ON THE LABEL**

**H2,6** - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

**(PILLAR)** - product on a stone wool base instead of a wooden pallet

**(X slabs)** - number of slabs in the pack

**(N) / (S)** - code of the region

Certificate number: **1454-CPR-0292**

Designation code for thickness products <50mm

**MW-EN 13162-T5-DS(70,90)-CS(10)60-TR15-PL(5)500-WS-WL(P)-MU1**

Designation code for thickness products ≥50mm

**MW-EN 13162-T5-DS(70,90)-CS(10)60-TR15-PL(5)700-WS-WL(P)-MU1**

Declaration of performance no: **BRI/FR/BRT60/2023\_04**





# BOERNER TOP 70

## STONE WOOL

### PRODUCT DESCRIPTION

BOERNER TOP 70 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

### APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with BOERNER BASE slabs or in other single- or multi-layer insulation systems.



THICKNESS RANGE **20 - 150 [mm]**

### DECLARED PARAMETERS

| Parameter                                                               | Symbol      | Unit                 | Value      | Method               |
|-------------------------------------------------------------------------|-------------|----------------------|------------|----------------------|
| Declared thermal conductivity                                           | $\lambda_D$ | W/mK                 | 0,039      | EN 12667, EN 12939   |
| Thickness tolerance class                                               | T           | -                    | T5         | EN 823               |
| Dimensional stability under certain temperature and humidity conditions | DS(70,90)   | %                    | $\leq 1$   | EN 1604              |
| Compressive stress at 10% deformation                                   | CS(10)      | kPa                  | $\geq 70$  | EN 826               |
| Tensile strength perpendicular to the faces                             | TR          | kPa                  | $\geq 15$  | EN 1607              |
| Point load at 5 mm deformation <50mm                                    | PL(5)       | N                    | $\geq 700$ | EN 12430             |
| Point load at 5 mm deformation $\geq 50$ mm                             | PL(5)       | N                    | $\geq 800$ | EN 12430             |
| Air flow resistivity                                                    | AFr         | kPa·s/m <sup>2</sup> | NPD        | EN 9053-1            |
| Short-term water absorption                                             | WS          | kg/m <sup>2</sup>    | $\leq 1$   | EN 29767             |
| Long-term water absorption                                              | WL(P)       | kg/m <sup>2</sup>    | $\leq 3$   | EN 16535             |
| Water vapor diffusion resistance coefficient                            | MU          | -                    | MU1        | EN 13162+A1          |
| Reaction to fire                                                        | RtF         | -                    | A1         | EN 13501-1, EN 15715 |

NPD - No Performance Declared

### DECLARED THERMAL REISTANCE

| Value of declared thermal resistance $R_D$ |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--------------------------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Thickness [mm]                             | 10  | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150  |  |
| $R_D$ [m <sup>2</sup> K/W]                 | -   | 0,50 | 0,75 | 1,00 | 1,25 | 1,50 | 1,75 | 2,05 | 2,30 | 2,55 | 2,80 | 3,05 | 3,30 | 3,55 | 3,80 |  |
| Thickness [mm]                             | 160 | 170  | 180  | 190  | 200  | 210  | 220  | 230  | 240  | 250  | 260  | 270  | 280  | 290  | 300  |  |
| $R_D$ [m <sup>2</sup> K/W]                 | -   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |  |

**STANDARD DIMENSIONS AND PACKAGING**

| Code     | Full name and dimensions |               | Pallet format | Pallet         |                |      |      | Pack           |                |      |
|----------|--------------------------|---------------|---------------|----------------|----------------|------|------|----------------|----------------|------|
|          |                          |               | mm            | m <sup>3</sup> | m <sup>2</sup> | slab | pack | m <sup>3</sup> | m <sup>2</sup> | slab |
| BR701027 | BOERNER TOP 70           | 1200x2400x20  | pillar        | 3,4560         | 172,80         | 60   | 0    | 0,0000         | 0,00           | 0    |
| BR701028 | BOERNER TOP 70           | 1200x2400x30  | pillar        | 3,4560         | 115,20         | 40   | 0    | 0,0000         | 0,00           | 0    |
| BR701029 | BOERNER TOP 70           | 1200x2400x40  | pillar        | 3,4560         | 86,40          | 30   | 0    | 0,0000         | 0,00           | 0    |
| BR701030 | BOERNER TOP 70           | 1200x2400x50  | pillar        | 3,4560         | 69,12          | 24   | 0    | 0,0000         | 0,00           | 0    |
| BR701031 | BOERNER TOP 70           | 1200x2400x60  | pillar        | 3,4560         | 57,60          | 20   | 0    | 0,0000         | 0,00           | 0    |
| BR701032 | BOERNER TOP 70           | 1200x2400x70  | pillar        | 3,2256         | 46,08          | 16   | 0    | 0,0000         | 0,00           | 0    |
| BR701033 | BOERNER TOP 70           | 1200x2400x80  | pillar        | 3,4560         | 43,20          | 15   | 0    | 0,0000         | 0,00           | 0    |
| BR701034 | BOERNER TOP 70           | 1200x2400x90  | pillar        | 3,1104         | 34,56          | 12   | 0    | 0,0000         | 0,00           | 0    |
| BR701035 | BOERNER TOP 70           | 1200x2400x100 | pillar        | 3,4560         | 34,56          | 12   | 0    | 0,0000         | 0,00           | 0    |
| BR701036 | BOERNER TOP 70           | 1200x2400x110 | pillar        | 3,1680         | 28,80          | 10   | 0    | 0,0000         | 0,00           | 0    |
| BR701037 | BOERNER TOP 70           | 1200x2400x120 | pillar        | 3,4560         | 28,80          | 10   | 0    | 0,0000         | 0,00           | 0    |
| BR701038 | BOERNER TOP 70           | 1200x2400x130 | pillar        | 2,9952         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR701039 | BOERNER TOP 70           | 1200x2400x140 | pillar        | 3,2256         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |
| BR701040 | BOERNER TOP 70           | 1200x2400x150 | pillar        | 3,4560         | 23,04          | 8    | 0    | 0,0000         | 0,00           | 0    |

**LOGISTICS INFORMATION**

Standard packaging on pillars. Full truck loading: 22 standard pallets.

Packing on wooden pallets (22 pallets and 11 high pallets marked with H2.6) to be confirmed in the logistics department

**STORAGE**

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

**ADDITIONAL INDICATIONS ON THE LABEL**

**H2,6** - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

**(PILLAR)** - product on a stone wool base instead of a wooden pallet

**(X slabs)** - number of slabs in the pack



Certificate number: **1454-CPR-0292**

Designation code for thickness products <50mm

**MW-EN 13162-T5-DS(70,90)-CS(10)70-TR15-PL(5)700-WS-WL(P)-MU1**

Designation code for thickness products ≥50mm

**MW-EN 13162-T5-DS(70,90)-CS(10)70-TR15-PL(5)800-WS-WL(P)-MU1**

Declaration of performance no: **BRI/FR/BRT70/2023\_04**