

## ThermaCool® Phase Change Materials

ThermaCool® Composite Ceiling Tiles incorporate Phase Change Materials. PCMs absorb, store and release excess latent heat and add lightweight thermal mass to the building.

## ThermaCool® Caprice Acoustic Tile

ThermaCool® Caprice is a class A acoustic tile is a light textured Square edge or Tegular tile installed in our Clic In modular grid 24mm or 15mm. Simple elegant appearance with excellent acoustic performance perfect for classrooms, meeting rooms and conference areas.

## **System Range**

| Product Code         | TCPM418 PA24                      |
|----------------------|-----------------------------------|
| Total Heat Capacity  | 418kJ/m2                          |
| Tile Size            | 600mm x 600mm                     |
| Modular Grid         | ThermaCool Clic In. 24mm or 15mm. |
| Thickness            | 40mm.                             |
| Edge Detail          | Square Edge, Tegular.             |
| Acoustic Performance | Class A absorption. EN150 354.    |
| Reaction to Fire     | A2. s1. d0. EN13501.1             |
| Light Reflection     | 84%                               |



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## **Equivalent Thickness:**

| Equivalent Thickness of Building Material | Specific Heat Capacity [J/(kg)] | Density [kg/m3] | Required thickness of building<br>material [mm] |
|---|---------------------------------|-----------------|---|
| ThermaCool TCPM418 PA24                   |                                 |                 | 24.0  |
| Concrete                                  | 1                               | 2               | 69.8  |

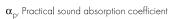
1 m2 of ThermaCool is equal to 168kg of concrete with a density of 2400kg/m3. Equivalent to 84 bricks

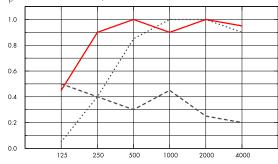
### Acoustic



## **Sound Absorption:**

Test results according to EN ISO 354. Classification according to EN ISO 11654.





- ····Caprice A 40mm , 50 mm o.d.s.
- Caprice A 40mm , 200 mm o.d.s.
- --- Caprice A/gamma 40mm , 200 mm o.d.s. o.d.s = overall depth of system

Frequency Hz

| THK o.d.s. mm |    |               | $lpha_{ m p}$ , Practical sound absorption coefficient |        |        |         |         |         | ď                | Sound absorption class |
|---------------|----|---------------|--|--------|--------|---------|---------|---------|------------------|------------------------|
|               | mm | O.U.S. IIIIII | 125 Hz   | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | $\alpha_{\sf w}$ | Sound absorption class |
| -             | 40 | 50            | 0.05   | 0.40   | 0.85   | 1.00    | 1.00    | 0.90    | 0.70             | С                      |
| -             | 40 | 200           | 0.45   | 0.90   | 1.00   | 0.90    | 1.00    | 0.95    | 1.00             | А                      |
| gamma         | 40 | 200           | 0.50   | 0.40   | 0.30   | 0.45    | 0.25    | 0.20    | 0.30             | D                      |

|   | THK<br>mm | o.d.s. mm | NRC  | SAA  |
|---|-----------|-----------|------|------|
| - | 40        | 50        | 0.80 |      |
| - | 40        | 200       | 0.95 | 0.00 |
| - | 40        | 400       | 0.85 | 0.86 |

| T⊦ | НK | AC(1.5)                                       | $D_{nfw}$   | CAC dB   |
|----|----|---|---|--|
|    | ım | Articulation Class, ASTM E1111,<br>ASTM E1110 | Weighted normalized flanking level difference,<br>ISO 10848-2 | Ceiling Attenuation Class, ASTM 1414,<br>ASTM E413 |
| 4  | 0  | 190   | 19  | 19   |

## **Indoor Air Quality**











### **Carbon footprint**

| kg CO2 equiv/m² |      | Life-cycle stages A1 to C4 from EPD, in conformity with ISO 14025 / EN 15804 |
|-----------------|------|--|
| Caprice         | 2,06 | 14023 / 11413004   |



#### Circularity

| Minimum post-consumer recycled content | 46%              |
|--|------------------|
| Recyclability                          | Fully recyclable |



#### Fire safety

| Country |            | Class    | The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182. |
|---------|------------|----------|--|
| Europe  | EN 13501-1 | A2-s1,d0 | non-combosible according to Et 150 1102.   |



### **Humidity Resistance**

Classification

Class C, RH 95% and 30°C



### Visual appearance

White 500, nearest NCS colour sample S 0500-N, 84% light reflectance.



#### Cleanability

Daily dusting and vacuum cleaning. Weekly wet wiping.

Caprice



#### Accessibility

The tiles are easily demountable. Minimum demounting depth according to installation diagrams.



#### Installation

Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification.



## **Mechanical properties**

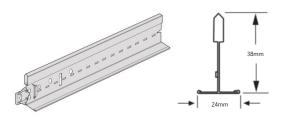
See table about Max live load and Min load bearing capacity and Functional demands, Mechanical properties at www ecophon com

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#### **Exposed 24mm grid system**

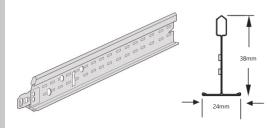
### **ThermaCool® Profiles 24 Main Runner**



| Product Code | Dimensions  |             | Content / Carton |       | Weight / Carton |
|--------------|-------------|-------------|------------------|-------|-----------------|
| Product.Code | Length (mm) | Height (mm) | pcs              | lm    | (kg)            |
| T24370       | 3700        | 38          | 25               | 92.50 | 32              |

European Fire Resistance Classification: A2, S1-d0 Durability Classification: Class B

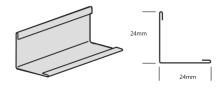
### **ThermaCool® Profiles 24 Cross Tees**



| Product.Code | Dimensions  |             | Content / Carton |       | Weight / Carton |
|--------------|-------------|-------------|------------------|-------|-----------------|
| Product.Code | Length (mm) | Height (mm) | pcs              | lm    | (kg)            |
| T24120       | 1200        | 32          | 75               | 90.00 | 26              |
| T24060       | 600         | 32          | 75               | 45.00 | 13              |

European Fire Resistance Classification: A2, S1-d0 Durability Classification: Class B

## **ThermaCool® Profiles 24 Perimeter Angle**

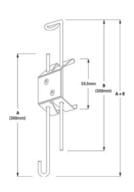


| Product Code | Dimer       | nsions      | Conten | t / Carton | Weight / Carton |
|--------------|-------------|-------------|--------|------------|-----------------|
| Product.Code | Length (mm) | Height (mm) | pcs    | lm         | (kg)            |
| T24300       | 3000        | 24          | 30     | 90.00      | 15              |

European Fire Resistance Classification: A2, S1-d0 Durability Classification: Class B

# ThermaCool® Profiles 24 Support Hanger





| Length of Bottom | Length of Top | Minimum Overall | Maximum Overall |
|------------------|---------------|-----------------|-----------------|
| Hanger (mm)      | Hanger (mm)   | Length (mm)     | Length (mm)     |
| A                | В             | В               | (A+B)           |
| 250              | 250           | 250             | 450             |
| 300              | 300           | 300             | 550             |
| 300              | 500           | 500             | 750             |
| 300              | 600           | 600             | 850             |
| 300              | 750           | 750             | 1000            |
| 300              | 1000          | 1000            | 1250            |
| 300              | 1200          | 1200            | 1450            |
| 300              | 1500          | 1500            | 1750            |
| 300              | 2000          | 2000            | 2250            |
| 300              | 3000          | 3000            | 3250            |

#### Certifications

ThermaCool® Profiles 24 Suspended Ceiling Grid has been tested and certified to European Standard EN 13964: 2006.

ThermaCool® Profiles 24 Suspended Ceiling Grid is CE accredited.

