

ThermoSafe® 040

Wood-fibre insulation board with compressive strength suitable for below screed flooring applications

GENERAL

ThermoSafe 040 boards are rigid insulating building boards. They are manufactured from **by-products** of the sawmills within the Black Forest area of Germany. The softwood chippings are pulped, soaked in water, then mechanically pressed into boards, dried, and cut to shape. Boards thicker than 20mm are made up of 20mm thick laminations.

Application

- Floors (i.e below screed)
- Walls (both internally & externally)
- Roofs

ADVANTAGES

Composition & Manufacture

- Manufactured entirely from renewable resources
- Manufactured entirely from by-products
- No chemical additives
- No toxins or toxic emissions during manufacture
- CO₂ zero-rated
- Timber fuelled embodied energy
- Actively recycled (i.e not theoretical)

Installation & Disposal

- No known health risks for workforce or installers
- Easily cut to shape and worked
- No VOC emissions
- Absorbs harmful VOC's and toxins
- Durable / Low maintenance
- Reusable / Recyclable
- Compostable

Performance

- High compressive strength
- Excellent thermal performance in Winter
- Excellent thermal performance in Summer
- Good acoustic performance
- Vapour permeable
- Hygroscopic (absorbs & releases moisture)
- Helps regulate indoor climate
- Vermin and fungus resistant
- Electrically neutral
- Non-radioactive
- Free from toxins and allergens
- Dimensionally stable (low thermal movement)
- Low toxic fumes if burn



PRODUCT DATA

Composition (% dry weight)

Spruce / pine chippings	98%
Water	2%
Natural resin	1%
PVA adhesive	

Dimensions & Packaging

Board size	1200 x 600 mm
Board thickness	40 / 60 / 100 mm
Boards per pallet	100 / 66 / 40
Coverage per pallet	72.0 / 47.5 / 28.8 m ²
Weight per pallet	550 kg

Technical data

Density, ρ	≥ 160 kg/m ³
Thermal conductivity, λ_R	0.040 W/m.K
Thermal resistance, R	1.0 / 1.5 / 2.5 m ² .K/W
Specific heat capacity, c	2500 J/Kg.K
Diffusion resistance, μ	5
Bending strength	≥ 0.2 N/mm ²
Fire rating	Class B2
Durability	70+ years

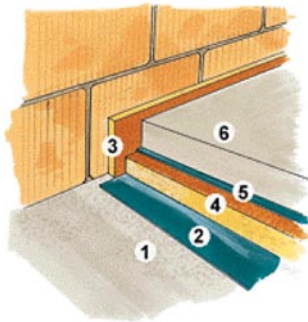
Standards

Manufactured to DIN 68755
Tested to DIN 18165 Part 1

TYPICAL APPLICATIONS

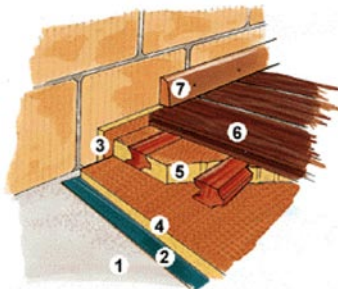
... Below screed

1. Floor slab
2. DPM
3. Edge strip
4. **ThermoSafe**
5. DPM
6. Screed



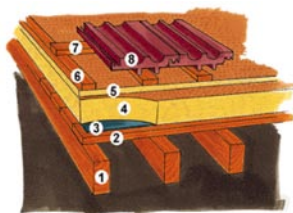
... Below solid timber flooring

1. Floor slab
2. DPM
3. Edge strip
4. **ThermoSafe**
5. **ThermoSafe-TG**
6. Floor boards
7. Skirting



... External roof insulation

1. Rafters
2. Boarding
3. **pro clima DA**
4. **ThermoSafe**
5. **Multiplex**
6. C. Battens
7. Battens
8. Roof covering



DESIGN CONSIDERATIONS

Maximum installation thickness

Screed (cement, anhydrite, asphalt etc)	140 mm
Chipboard / OSB flooring ≥ 25 mm / 22 mm	140 mm
ThermoSafe-TG ≥ 22 mm	100 mm
Dry Flooring Elements ≥ 30 mm	60 mm
Parquet timber flooring ≥ 14 mm	20 mm

STORAGE & HANDLING

Storage

Store in dry conditions.

Cutting

Cut boards using a fine-toothed hand saw, Jig saw, or circular saw with integral dust extractor.

Installation

Protect boards from moisture in the substrate / screed.

Avoid cross joints when laying.

Stagger joints when installing more than one layer.

Install edge strip to the full height of the proposed floor make up.

SUPPLY

Availability

ThermoSafe, **Multiplex** and Standard-n wood-fibre insulation boards, and **pro clima DA** building papers are available direct from Construction Resources.

Packaging

Boards are supplied individually or on pallets (see **Dimensions**).

SERVICES

Sales

For cost quotations please contact the Sales Department at the address below.

Technical

For further technical information on this product please contact a product specialist at the address below.