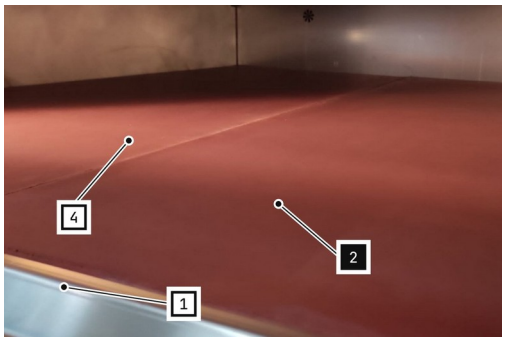
TECHNICAL DATA SHEET · BP-15 · BP-20 · BP-30

FEBENG Baking Panel

Engineered cement-bound hearth panel for deck, tube, conveyor and pizza ovens

The FEBENG Baking Panel is a fibre-reinforced, cement-bound composite baking surface developed by materials engineers together with oven manufacturers and professional bakers. It replaces natural stone, refractory brick and cordierite in the hearth of industrial and artisanal ovens, giving repeatable heat storage, uniform heat distribution and a flat, dimensionally stable baking surface — cut to the size and edge profile of your oven.



RED PANELS INSTALLED AS THE HEARTH OF A DECK OVEN

A1	350 °C	2,500 mm	≥ 40 N/mm²
FIRE CLASS, EN 13501-1	MAXIMUM SERVICE TEMPERATURE	MAXIMUM PANEL LENGTH	COMPRESSIVE STRENGTH

GENERAL FEATURES

- High heat storage capacity and uniform heat distribution for an even bake, good oven spring and a consistent crust
- Dimensionally stable up to 350 °C; no thermal-shock micro-cracking within the operating range
- Flat, non-stick surface options; easy to slide products in and out
- Any size up to 1,250 × 2,500 mm; thicknesses 15, 20 and 30 mm; custom edge profiles
- Reaction to fire class A1 — non-combustible
- Food-contact material: lead (Pb) and cadmium (Cd) not detected (ISO 6486-2 limits)
- Easy to clean with water only; long service life under cyclic thermal loading

TECHNICAL PROPERTIES

MATERIAL	
Composition	Cement-bound mineral composite, alkali-resistant glass-fibre reinforced
Colour / surface	Red · Grey · Patterned (non-stick surface options on request)

PHYSICAL & MECHANICAL	
Density	≈ 2,200 kg/m³
Compressive strength	≥ 40 N/mm² measured before first heating
Flexural strength	≥ 12 N/mm² measured before first heating

THERMAL	
Thermal conductivity	≈ 0.8 W/(m·K)
Coefficient of thermal expansion	1.0×10^{-5} /°C
Maximum service temperature	350 °C continuous operating range 300–350 °C
Dimensional stability	Stable up to 350 °C
Thermal-shock micro-cracking	Absent up to 350 °C
Radiant heat characteristics	Excellent — infrared emission 4–14 µm

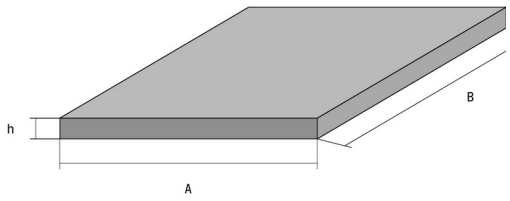
FIRE & FOOD SAFETY	
Reaction to fire	Class A1 (EN 13501-1) non-combustible
pH in water after stabilisation	7.2 – 8.0
Release to water / to hot food	None detected
Lead (Pb) / cadmium (Cd)	Not detected WD-XRF analysis, ISO 6486-2 permissible limits, October 2025
Food-contact regulation	Regulation (EC) No 1935/2004 — declaration available on request

SIZES

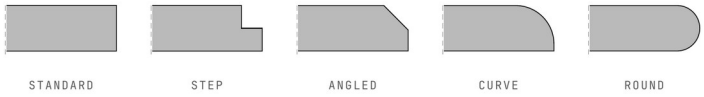
Thickness (h)	15 mm · 20 mm · 30 mm other thicknesses on request
Width (A)	up to 1,250 mm
Length (B)	up to 2,500 mm
Product codes	BP-15 · BP-20 · BP-30
Tolerances	Length / width ± 2 mm · thickness ± 1 mm tighter tolerances on request

EDGE PROFILES

Oven manufacturers can specify the edge finish to suit the oven design. Five standard profiles are available: Standard, Step, Angled, Curve and Round. Stepped and angled edges allow panels to be laid as a continuous hearth without gaps; rounded edges give a wear- and impact-resistant front edge where peels and trays enter the oven.



PANEL · THICKNESS H · WIDTH A · LENGTH B



STANDARD EDGE PROFILES

APPLICATIONS

- Hearth floor of deck ovens (electric, gas and wood-fired) for bread, pastry and pizza
- Pre-cut hearth stones for tube (steam-tube) ovens
- Conveyor and tunnel oven liners where standard refractories chip or warp under cyclic loading
- Side and back panels of stone ovens
- Replacement hearth for legacy ovens with cracked or worn original stones

FIRST HEATING (CURING) PROCEDURE

Every panel carries residual moisture from production and storage. It must be driven off slowly at first use: 1 cm³ of liquid water expands to roughly 1,000 cm³ of steam, and a fast heat-up can crack or deform even the strongest mineral panel. The oven temperature must not exceed 50 °C when the panels are inserted. Follow the step-by-step programme below, and repeat it every time panels are replaced.

STEP	PANELS 15 MM	PANELS 20 AND 30 MM
1	100 °C for 1 h	100 °C for 2 h
2	150 °C for 2 h	150 °C for 2 h
3	200 °C for 1 h	200 °C for 1 h
4	250 °C for 1 h	250 °C for 1 h
5	Ramp to working temperature	Ramp to working temperature

- Heat-up rate: first 60 min at approx. +2 °C/min, then approx. +1 °C/min until the hold temperatures are reached.
- Allow panels to acclimatise for 48 h in the installation environment before first heating.
- Before bringing the panel to temperature, keep it lightly loaded (weighted) to prevent any bowing during curing.
- Panels are supplied factory-cured; allow 28 days from production before the first heating.

CLEANING

Do not use soap or detergents: absorbed residues may migrate into food during baking. Rinse the panels with clean water, wipe gently and leave to dry for 24 hours before re-heating. Never pour water onto a hot panel.

HANDLING & STORAGE

- Panels heavier than 25 kg or longer than 2,000 mm must be carried by at least two people.
- Lift and transport panels vertically (on edge); do not carry them flat.
- Place thin synthetic sheets between panels when stacking.
- Store exclusively indoors in a dry place, protected from moisture and frost.

GENERAL NOTES

- Maximum temperature for the FEBENG Baking Panel is 350 °C.
- The panel is not designed for use on an open grill or in direct contact with flames.
- Panels are supplied as manufactured articles; see the FEBENG Baking Panel Safety Data Sheet for information on cutting and drilling.

PACKAGING & DELIVERY

Panels are delivered on edge on wooden pallets, separated by protective sheets and strapped. Standard lead time and minimum order quantities are given in the current price list. Custom sizes, edge profiles and surfaces are produced to drawing.

NOTE — The information in this data sheet is based on laboratory testing and practical experience and is given in good faith. Values marked as typical are average values from production control and are not a specification unless stated. Because conditions of use are beyond our control, the user must verify suitability for the intended application. This revision supersedes all previous versions.

ISSUED BY

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RELATED DOCUMENTS: Safety data sheet FEB-SDS-BP-01 · Product brochure FEB-BRO-BP-01
FEB-TDS-BP-01 · REV. 02 · OCTOBER 2026