esb-Blog

We regularly publish application examples and users‘ questions on our esb blog (esb-blog.elka-holzwerke.de). We particularly welcome comments, questions and photos of applications.

Go directly to the esb blog with your smartphone.
Simply scan the code and off you go!

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The 5 advantages of esb at a glance:

Better than OSB!

- Optimum board utilisation
- Transverse tensile strength 40% better than with OSB
- High dimensional stability when machining
- First rate appearance

Suitable for painting!

Odour-neutral!

Water vapour permeable!

Good value!

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Your authorised dealer will be pleased to advise you:

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5 compelling advantages of esb elka strong board

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PEFC Promoting Sustainable Forest Management www.pefc.co.uk

Qualitätsgemeinschaft Holzwerkstoffe e.V.

CE

elka strong board

5 compelling advantages of esb

elka Branded Products

Why esb is better than OSB?

Thanks to good static values (in accordance with DIN EN 12369 Part 1/DIN 20000-1) and excellent technical parameters (in accordance with DIN EN 13986 and DIN EN 312), esb is ideal for floor structures, wall and roof cladding, hoardings, shopfitting and exhibition stand construction, interior fittings, structural ceiling, roof and wall panels in timber framed structures, and packaging.
The technical characteristics in detail:

Bending strength and elastic modulus:
The bending strength and elastic modulus of esb are the same in both directions.
In contrast, these values of OSB are 50% less in the transverse direction. This has the advantage that craftsmen can optimize cut-to-size. Mistakes due to confusing the major and minor axes are no longer an issue with esb.

Transverse tensile strength:
The transverse tensile strength is 40% better than with OSB.
This effect has the advantage that the screw and nail pull-out resistance is higher.

Swelling values:
The swelling values are significantly lower than with OSB.
The advantage is high dimensional stability when machining.

Outstanding appearance with sanded surfaces:

The esb has a very light surface and a clean appearance.
Uniquely on the German market, it is made of 100% locally sourced fresh wood chips without recycling wood.
esb is supplied with sanded surface.
This has the advantage of no reworking and no subsequent sanding.

Is it possible to paint esb?

Yes! As esb is always sanded and has a virtually sealed surface, this enables water vapour permeable varnishes as well as paints or adhesives to be applied.

Can the indoor-use of esb increase unpleasant odours?

No! The esb is essentially odour-neutral and supports a healthy indoor climate.
OSB, on the other hand, can emit volatile, organic compounds, such as hydrocarbons, aldehyde, acetone and organic acids under certain conditions.
The Federal Environmental Agency's research project „Determination of VOC emissions from OSB UMID 1 2013" reports that possible effects include unpleasant odours, irritation of mucous membranes and long-term toxic effects.

How important is the permeability of esb to water vapour?

In a similar way to which heat always flows from the warm to the cold side, a balance also takes place between areas with different humidity.
To enable this to work properly, we combine vapour barriers and our water vapour permeable esb in an intelligent way.
The latter prevents the formation of condensation and therefore structural damage due to damp.
esb is a water vapour permeable wood material which compensates for climatic variations in the building.
esb has also proved of value as a bearer for rear-ventilated shuttering or behind a vapour permeable thermal insulation.
The esb therefore ensures that moisture is transported across the whole thickness of the wall and over the whole lifetime of the board.
In order to achieve a water vapour impermeable structure, the esb can be combined with a vapour barrier sheet on the warm side of the wall.
This technology, which has been proven over tens of years, is used in the prefabricated housing industry. A physical structural investigation of the chosen structure is indicated in the case of structures without a vapour barrier.

What does esb cost?

The brand product price of the esb panel depends on the current timber prices and the quantity ordered.
Thanks to its wide usage spectrum, esb can replace P2, P3, P5 particle board and OSB/2, OSB/3 in the timber trade as well vapor-permeable wood fibre panels.

TO SUM UP: esb is a real all-rounder with many advantages!!

esb (P5) are manufactured in accordance with DIN EN 312.
They are supplied with PEFC certification and are CE marked.

PEFC
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