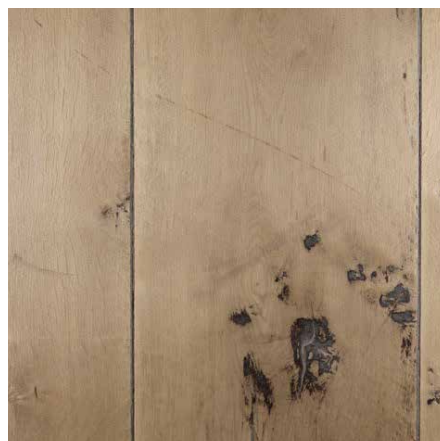




ENGELI

historic, patinated &
remarkable

Collection



Engeli light



Engeli medium




Engeli dark

**Schotten
& Hansen**

Engeli Collection

Product specifications

Description	Construction: Multi-layer construction Top-Layer: Oak veneer Carrier: Birch plywood
Length¹	2450-5000 mm, in steps of 500 mm ² ; proportionally short lengths (1450 mm, 1950 mm) up to 10 %.
Width¹	240-360 mm, In steps of 40 mm ³
Thickness¹	17 mm ⁴ (± 0.5 mm)
Top-layer¹	2.5 mm (± 0.5 mm); glued waterproof and formaldehyde-free.
Surface	Schotten & Hansen pre-finished, permeable surface. Surface treatment with natural oils, resins and waxes. Schotten & Hansen surfaces can be regenerated without sanding or mechanical treatment. Avoid strongly acidic and alkaline agents.
Wood moisture content	On delivery: approx. 8 % ex works. A special drying process during production reduces shrinkage and swelling behaviour of the floor boards after installation.
Emissions	Formaldehyde emission according to EN 14342: Class E1, measured as EN 717- 1 VOC-emission according to AgBB scheme < 1 mg / m ³ . 
Fire behaviour classification	Dfl – s1 according to EN 14342:2013
Profile processing	Boards are grooved and tongued on the long sides, Face sides of the boards are grooved. Integrated, filled joint 4 mm.
Installations	Full bonding with permanently elastic adhesive. Installation according to DIN 18356. Requirement on subsoil: Installation-ready subsoil according to DIN 18356 and DIN 18202 chart 3, line 4 increased requirements. Recommended adhesive: BONA Quantum or adhesive of equal quality (adhesive used for installation has to be approved by general building inspectorate); suitable for gluing the floorboards on screed. We recommend a room-length installation of the floor boards.
Underfloor heating	Schotten & Hansen floorboards are well-suited for use in combination with underfloor heating with hot water or electrically. Heat conductivity λ [W/(m*K)]: top layer oak 0.12 (calculated according to EN 14342:2013) Heat contact resistance R [m ² K/W]: overall construction 0.11 (calculated according to EN 14342:2013) Maximum surface temperature of the floorboards: 29° C.
Cleaning & Care	Schotten & Hansen cleaning and caring products. Schotten & Hansen recommends the use of a floor polishing machine. For further information please see the cleaning and caring instructions or contact our service department: service@schotten-hansen.com
Recycling	Schotten & Hansen wood products are recyclable according to the waste wood regulation category A2 and can therefore be reused for the production of wood-based materials.

¹ Dimensions may vary slightly due to production conditions. Distribution of lengths and widths according to production requirements.

² Possible fixed lengths: 3000, 3500, 4000, 4500, 5000 mm

³ Possible fixed widths: 240, 280, 320, 360 mm

⁴ Other total thickness of boards possible on request

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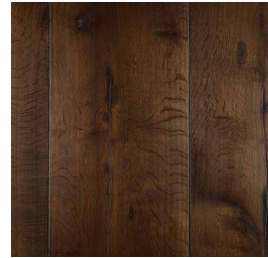
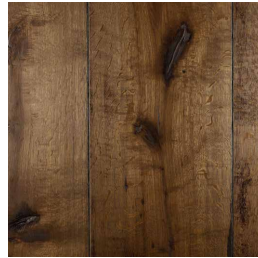
Collection Colours

light

medium

dark

Engeli



Selection

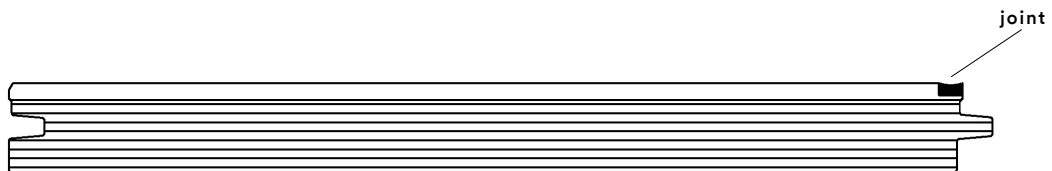
6 Engeli

Very lively wood structure with selected knots, distinctive shrinkage and wind cracks, mended by hand.

Treatment

6 Engeli

Shrunk treatment⁵ with integrated and filled joint between the floor boards in a matching colour.



We reserve the right to deviations in color compared to exhibits or samples, insofar as these are in the nature of the materials and are customary in the trade.

⁵ Patented Schotten & Hansen surface treatment.

**Schotten
& Hansen**

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Engeli Collection

Further Information

Indoor climate and wooden floor

Wood is a natural material that is adjusting to the indoor climate. Wood absorbs moisture from the air and releases it again.

We would like to point out that during the heating period, the floorboards might strongly dry out and thus develop shrinkage cracks. Cracks caused by low air humidity during the heating period do not justify complaint.

With the maintenance of a comfortable and healthy indoor climate of 20° C and 50% relative humidity during the heating season, you can largely avoid the negative effects of this natural phenomena.

Thermal- and hygrometers control the air in your rooms easily. In case the air is too dry, suitable measures for humidifying the air must be taken. We recommend you a humidifier control - hygrostat for obtaining a constant air humidity.

Installation should be carried out professionally by a trained Schotten & Hansen partner.

Bonding

The preparation of the subsoil is to be carried out in accordance with the guidelines of the adhesive manufacturer and relevant DIN standards.

For the bonding of all Schotten & Hansen floor products we recommend a solvent-free and elastic adhesive.

In the process of glueing, full bonding to the subsoil and a sufficient contact pressure during the setting has to be ensured.

Bonding on Screed

First, an inspection of the subsoil and the application requirements has to be conducted according to VOB Part B DIN 1961 and Part C DIN 18356.

Due to the large lengths and widths of some flooring products, increased care is required for the evenness of the subsoil.

Installation on underfloor heating

All Schotten & Hansen long boards are to be fully bonded with elastic adhesive to underfloor heating. Prior to this, a thorough inspection of the heating screed's readiness for installation has to be carried out – in particular the heating protocol and the details of test points (pursuant to DIN standards) have to be documented by the screed layer. The adhesive must be suitable for bonding on an underfloor heating system.

Please observe the maximum surface temperature of 29° C.

Additionally, during a heating-period the air humidity should be improved. Otherwise the floorboards might strongly dry out and develop shrinkage cracks. Cracks caused by low air humidity during the heating period do not justify complaint.

Important measurements prior to installation:

- Let the unpacked workpieces acclimatise in the final room conditions for approx. one week until the equilibrium moisture content is reached.
- Switch off underfloor heating three days before installation.
- Measure moisture content of the screed.
- Keep room climate constant at 45 % ± 5 % relative air humidity. This also applies for the next few days after the installation (during this time increase underfloor heating by 5° C per day).
- Prepare a heating protocol.

All information on this data sheet is to be considered as advice and is based on empirical investigations according to today's state of the art. Therefore, all provided information on the suitability, processing and application of our products, as well as technical advice and further particulars, do explicitly not release the customer and/or user from verifying the products' suitability by means of their own tests.