The Formwork Experts.

Doka beam XT20

Data Sheet

96437-800

Timber formwork beam XT20 is a light, solid-web beam with increased load-bearing capacity pursuant to approval issued by the German Institute of Construction Engineering (Deutsches Institut für Bautechnik, DIBt) with polyurethane beam-end reinforcement for a longer life cycle.

Basic design concept

- Solid-web beam made of wood and wood-based materials pursuant to national technical approval n° Z-9.1-920.
- Flange is spruce, automatically machine-graded, and 100 % of the beam flanges are tested by the tensile loading test method (proof-loading).
- Poplar-plywood web with grey web coating.
- Polyurethane end reinforcement.
- 2 system holes at each beam end.

Glue-bonding

Glues/adhesives used are tested and approved systems for load-bearing applications indoors and outdoors.

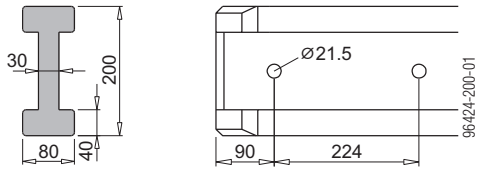
Surfaces

- Yellow varnish without wood preservatives.
- Grey web coating.

Technical data

Note:
All values in the tables are based on a wood moisture content of 12 ± 2% on delivery.
Changes in the wood's moisture content can have effects on the weight, dimensions and mechanical properties of the beam.
Doka beams XT20 are designed for loading in the direction of the height of the beam.

Dimensions:



Figures given in mm

Lengths:

Length [m]	
1.80 - 5.90	with end reinforcement
> 5.90 - 12.00	trimmed off straight

For details, see article list

Tolerances:

	Tolerance
Height	± 1.0 mm
Length up to 6 m	+ 0 / - 3.0 mm
Length > 6 m	± 3.0 mm

Weight: 5.0 kg/lin.m

Mechanical properties (in accordance with Approval n° Z-9.1-920):

Perm. shear force Q [kN]	15.0 (16.5)[1)]
Perm. moment M [kNm]	7.0
Flexural stiffness EI [kNm²]	585
Perm. span [m]	4.50

[1)] Pursuant to Approval n° Z-9.1-920, 16.5 kN can be assumed as permitted shear force, given compliance with the permitted reaction force of 30 kN.

These values allow for a γ_F = 1.5, a k_{mod} of 0.9 and a γ_M = 1.3. Under different conditions of use and/or with moisture content > 20%, the values have to be modified accordingly.

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Use

- For use in wall-formwork and slab-formwork systems, tunnel formwork, automatic climbing formwork, etc.
- These beams have the same dimensions as Doka beams H20 but are stronger, so the reduction in material quantities in slab and wall formwork is considerable..
- The polyurethane beam-end reinforcement contributes to a longer life cycle.
- Beam-flange markings in a 50 cm grid for Dokaflex and Dokaflex 30 tec systems.

The beams can be labelled with the client's name if desired.

Notes on use

This formwork beam is intended for use in load-bearing towers and formwork.

- Prudent handling is important in order to achieve maximum service life, and this applies in particular when stripping out slabs.
- Protect stacked beams from extreme climatic influences such as exposure to sunshine or moisture by roofing them over or covering them with breathable tarpaulins. This reduces cracking, fungal attack and mould.
- Only cover them – never envelope them completely.

General information

The data stated here are guide values.

Follow the directions in the 'Timber formwork beams' User Information booklet!
You can download it here:

www.doka.com/timber-formwork-beams