

# Form-on smartBEAM 20P



Reliable high load capacity  
according to EN 13377

High stability due to  
homogeneous web material

Pressboard web preferred  
in very dry climates

100 % tensile test of flanges



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**Form-on**

# Form-on smartBEAM 20P

## Your advantages:

-  Reliably high load capacity across the entire beam length thanks to homogeneous web material.
-  Secured component load capacity, as all of the flanges are machine stress-graded and load-tested.
-  Consistent product characteristics owing to high dimensional stability.
-  Multiple savings compared to squared timber due to improved load capacity combined with lower weight.

### Form-on smartBEAM 20P

| Length | P.U. | kg   | Art. no.  |
|--------|------|------|-----------|
| 180    | 100  | 9.4  | 620038000 |
| 245    | 100  | 12.7 | 620039000 |
| 265    | 100  | 13.8 | 620032000 |
| 290    | 100  | 15.1 | 620033000 |
| 330    | 100  | 17.2 | 620034000 |
| 360    | 100  | 18.7 | 620035000 |
| 390    | 100  | 20.3 | 620036000 |
| 450    | 100  | 23.4 | 620037000 |
| 490    | 100  | 25.5 | 620040000 |
| 590    | 60   | 30.7 | 620041000 |

### TECHNICAL SPECIFICATIONS

**Web:** w = 20 cm  
**Flange:** w = 4 cm, h = 8 cm  
**Moment (M):** 5 kNm  
**Rigidity (E x J):** 450 kNm<sup>2</sup>  
**Shear force (Q):** 11 kN  
**Certification:** EN13377

### EXAMPLE

- 1 Floor thickness: 20 cm | 2 Secondary beam spacing: 0.75 m
- 3 equals primary beam spacing as per Table 1: 2.61 m
- 4 Select primary beam spacing ≤ 2.61 in Table 2 (= 2.50 m)
- 5 permissible prop spacing at 20 cm slab thickness in Table 2: 1.19 m



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TABLE 1

| Slab thickness (cm) | Slab load* (kN/m²) | Max. perm. primary beam spacing (m) for secondary beam spacing** (m) of |       |       |       |      | Max. perm. prop spacing (m) for selected primary beam spacing (m) of |      |      |      |      |      |      |      |      |  |
|---------------------|--------------------|-------------------------------------------------------------------------|-------|-------|-------|------|----------------------------------------------------------------------|------|------|------|------|------|------|------|------|--|
|                     |                    | 0.500                                                                   | 0.625 | 0.667 | 0.750 | 1.00 | 1.25                                                                 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | 2.75 | 3.00 | 3.50 |  |
| 10                  | 4.3                | 3.69                                                                    | 3.43  | 3.35  | 3.22  | 2.93 | 2.72                                                                 | 2.50 | 2.32 | 2.17 | 2.04 | 1.88 | 1.71 | 1.57 | 1.34 |  |
| 12                  | 4.7                | 3.49                                                                    | 3.24  | 3.17  | 3.05  | 2.77 | 2.57                                                                 | 2.37 | 2.20 | 2.05 | 1.87 | 1.69 | 1.53 | 1.41 | -    |  |
| 14                  | 5.2                | 3.33                                                                    | 3.09  | 3.03  | 2.91  | 2.65 | 2.46                                                                 | 2.26 | 2.09 | 1.91 | 1.70 | 1.53 | 1.39 | 1.27 | -    |  |
| 16                  | 5.7                | 3.20                                                                    | 2.97  | 2.91  | 2.79  | 2.54 | 2.36                                                                 | 2.16 | 2.00 | 1.75 | 1.55 | 1.40 | 1.27 | 1.16 | -    |  |
| 18                  | 6.2                | 3.08                                                                    | 2.86  | 2.80  | 2.69  | 2.45 | 2.27                                                                 | 2.07 | 1.84 | 1.61 | 1.43 | 1.29 | 1.17 | -    | -    |  |
| 20                  | 6.7                | 2.98                                                                    | 2.77  | 2.71  | 2.61  | 2.37 | 2.18                                                                 | 1.99 | 1.70 | 1.49 | 1.33 | 1.19 | 1.08 | -    | -    |  |
| 22                  | 7.2                | 2.90                                                                    | 2.69  | 2.63  | 2.53  | 2.30 | 2.11                                                                 | 1.85 | 1.59 | 1.39 | 1.24 | 1.11 | 1.01 | -    | -    |  |
| 24                  | 7.7                | 2.82                                                                    | 2.61  | 2.56  | 2.46  | 2.24 | 2.04                                                                 | 1.73 | 1.49 | 1.30 | 1.16 | 1.04 | 0.95 | -    | -    |  |
| 26                  | 8.2                | 2.75                                                                    | 2.55  | 2.49  | 2.40  | 2.18 | 1.96                                                                 | 1.63 | 1.40 | 1.22 | 1.09 | 0.98 | -    | -    | -    |  |
| 28                  | 8.7                | 2.68                                                                    | 2.49  | 2.44  | 2.34  | 2.13 | 1.85                                                                 | 1.54 | 1.32 | 1.15 | 1.03 | 0.92 | -    | -    | -    |  |
| 30                  | 9.2                | 2.62                                                                    | 2.44  | 2.38  | 2.29  | 2.08 | 1.75                                                                 | 1.46 | 1.25 | 1.09 | 0.97 | 0.87 | -    | -    | -    |  |
| 35                  | 10.5               | 2.50                                                                    | 2.32  | 2.27  | 2.18  | 1.91 | 1.52                                                                 | 1.27 | 1.09 | 0.95 | 0.85 | -    | -    | -    | -    |  |

1) In accordance with EN12812, this allows for a service load of 0.75 kN/m<sup>2</sup> and a variable load of 10% of a massive concrete floor-slab, totalling at least 0.75 kN/m<sup>2</sup> but no more than 1.75 kN/m<sup>2</sup> (assuming a fresh-concrete density of 2 500 kg/m<sup>3</sup>). Mid-span deflection has been limited to l/500. In the case of cavity flat-slab floors, significantly lower slab loads occur.

2) Form-on beam to EN13377. 3) Form-on prop with a permitted loading capacity of ≥ 20 kN. \*\* Space the secondary beams in accordance with the type of formwork sheeting (load-bearing capacity and sheet format) that has been chosen.

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**Form-on GmbH**

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Subject to change in the course of technical development.