






Compliant with  
EN 13377

# Form-on smartBEAM 20

-  reliably high load capacity
-  long lifespan
-  high dimensional stability

**FORM-ON**<sup>®</sup>



# Form-on smartBEAM 20

## Your benefits:

- 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



### Example:

- ❶ Floor thickness: 20 cm | ❷ Secondary beam spacing: 0.75 m |
- ❸ equals primary beam spacing as per Table 1: 2.61 m
- ❹ Select primary beam spacing  $\leq 2.61$  in Table 2 (= 2.50 m) | ❺ permissible prop spacing at 20 cm floor thickness in Table 2: 1.19 m

Form-on smartBEAM 20	P.U.	kg	Art.-Nr.
Form-on smartBEAM 20N 180	100	8.5	620019000
Form-on smartBEAM 20N 245	100	11.5	620020000
Form-on smartBEAM 20N 265	100	12.5	620022000
Form-on smartBEAM 20N 290	100	13.6	620023000
Form-on smartBEAM 20N 330	100	15.5	620024000
Form-on smartBEAM 20N 360	100	16.9	620025000
Form-on smartBEAM 20N 390	100	18.3	620026000
Form-on smartBEAM 20N 450	100	21.2	620027000
Form-on smartBEAM 20N 490	100	23.0	620028000
Form-on smartBEAM 20N 590	60	27.7	620029000
Form-on smartBEAM 20P 180	100	9.4	620038000
Form-on smartBEAM 20P 245	100	12.7	620039000
Form-on smartBEAM 20P 265	100	13.8	620032000
Form-on smartBEAM 20P 290	100	15.1	620033000
Form-on smartBEAM 20P 330	100	17.2	620034000
Form-on smartBEAM 20P 360	100	18.7	620035000
Form-on smartBEAM 20P 390	100	20.3	620036000
Form-on smartBEAM 20P 450	100	23.4	620037000
Form-on smartBEAM 20P 490	100	25.5	620040000
Form-on smartBEAM 20P 590	60	30.7	620041000

## Technical specifications:

**Web:** b = 20 cm

**Flange:** b = 4,0 cm, h = 8,0 cm

**Moment (M):** 5 kNm

**Shear force (Q):** 11 kN

**Rigidity (E x J):** 450 kNm<sup>2</sup>

**Certification:** EN 13377

Table 1		Table 2														
Floor thickness (cm)	Floor load * (kN/m <sup>2</sup> )	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	—	—	—	—	

\* Based on EN 12812, numbers refer to solid concrete floor slabs with live loads of 0.75 kN/m<sup>2</sup> and min. variable loads of 10 %, min. 0.75 kN/m<sup>2</sup> but not to exceed 1.75 kN/m<sup>2</sup> (with 2.5 kN/m<sup>3</sup> fresh concrete slab bulk density). The mid-span deflection has been limited to l/500. Significantly lower floor loads are produced in hollow floor slabs.

