KARELIA GROUP LLC

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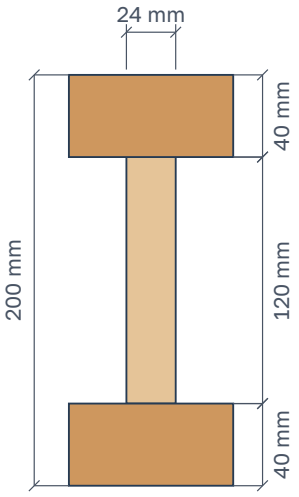

Quality passport

Karelia Premium H20

Timber I-beam for formwork
with protective plastic end caps.

Intended use

Load-bearing beam for beam-and-waler wall formwork and slab formwork. The beam supports loads from freshly placed concrete.

Product characteristics

No.	Characteristic	Unit	Value
1	Manufacturer		KARELIA GROUP LLC, Kondopoga, Republic of Karelia, Russia
2	Standards		GOST 34329-2017; GOST R ISO 9001-2015 (ISO 9001:2015)
3	Dimensions and mass		
3.1	Length	m	1.5–6.0
3.2	Height	mm	200 ± 2
3.3	Flange thickness	mm	40 ± 0.5
3.4	Flange width	mm	80 ± 0.5
3.5	Web thickness	mm	24 ± 1
3.6	Nominal mass per metre	kg/m	5.2
4	Flange timber		Spruce or pine from northern Karelia. Two pieces of timber from one log (2 ex log). Standard reference: DIN EN 14080:2013-09.
4.1	Target moisture content of flange timber	%	12 ± 2

Materials and bonded joints

No.	Characteristic	Value
4.2	Longitudinal finger joints in flanges	Up to and including 3.90 m: no more than one joint per flange. Over 3.90 m: no more than two joints per flange.
4.3	Adhesive for finger jointing flange timber	KLEIBERIT 303.2, a PVAc dispersion adhesive.
5	Web material	Moisture-resistant birch plywood.
5.1	Web thickness	24 mm.
5.2	Number of web tongues seated in each flange	2.
5.3	Tongue insertion depth	13 mm.
5.4	Web-to-flange adhesive	One-component polyurethane adhesive: PURBOND HB S109 (Henkel) or KLEIBERIT.
6	Surface coating	REMMERS. Standard reference: EN 927-1:2013.
7	Marking	Provided.
8	Reuse	50 cycles.
9	Warranty	6 months.
10	Quality documentation	Quality passport and certificate.

Mechanical characteristics

Based on the test report dated 17 February 2025.

Characteristic	Unit	P20 reference value per EN 13377:2002	Test report
Characteristic bending moment M_k	kN·m	10.9	**11.29**
Characteristic shear force V_k	kN	23.9	**27.74**
Characteristic bearing resistance $R_{b,k}$	kN	47.8	**52.05**
Bending stiffness EI	kN·m²	450	**459.9**

KARELIA PREMIUM H20

Slab formwork installation

Installation is carried out by trained personnel in accordance with the formwork design and method statement. Beam and prop spacings are determined by the project design, taking account of loads, support conditions, formwork facing and prop capacity.

Indicative spacings for slabs 120–300 mm thick

Slab thickness, mm	Total load q, kN/m²	Primary beam spacing, m, for secondary beam spacings of:					Prop spacing, m, for primary beam spacings of:						
		0.40	0.50	0.625	0.667	0.75	1.50	1.75	2.00	2.25	2.50	2.75	3.00
120	4.92	3.64	3.43	3.19	3.12	3.00	2.33	2.16	2.02	1.90	1.79	1.63	1.49
140	5.44	3.47	3.27	3.04	2.97	2.86	2.21	2.05	1.92	1.80	1.62	1.47	1.35
160	5.96	3.33	3.14	2.92	2.85	2.74	2.12	1.96	1.83	1.64	1.48	1.34	1.23
180	6.48	3.21	3.03	2.81	2.75	2.65	2.03	1.88	1.70	1.51	1.36	1.23	1.13
200	7.00	3.10	2.93	2.72	2.66	2.56	1.95	1.80	1.57	1.40	1.26	1.14	1.05
220	7.52	3.01	2.84	2.64	2.58	2.48	1.88	1.67	1.46	1.30	1.17	1.06	0.98
240	8.04	2.93	2.76	2.57	2.51	2.42	1.82	1.56	1.37	1.22	1.09	1.00	0.91
260	8.56	2.86	2.70	2.50	2.45	2.35	1.71	1.47	1.29	1.14	1.03	0.93	0.86
280	9.08	2.79	2.63	2.44	2.39	2.30	1.62	1.38	1.21	1.08	0.97	0.88	0.81
300	9.66	2.73	2.57	2.39	2.34	2.25	1.52	1.30	1.14	1.01	0.91	0.83	0.76