

FinnForm Data Sheet

The superior hardwood strength properties of Finnish White Birch combined with thin multiple veneer panel construction makes FinnForm the benchmark for quality in the plywood forming industry. The 200g/m² phenolic surface film on both faces provides very high reusability while producing smooth, well-compacted concrete. That's why architects and specifiers select FinnForm for high profile concrete projects throughout the country. There's only one FinnForm—easily identified by its red colored film faces.

Characteristics of Concrete Form Plywood

Strength and Elasticity

The following data for FinnForm[®] was derived from thousands of in-use tests. The values are certified by the State Institute for Technical Research, Helsinki, Finland. A safety factor of 2.33 has been used in determining the allowable stresses. Deflection data were computed based on the formula:

$$\Delta_{\max} = \frac{w}{12} \times \frac{4}{581} \times \frac{L^4}{EI}$$

Tabled data is for FinnForm[®] only.

The structural data allows the form designer to predict with reasonable certainty, the maximum deflection that will occur under given loads. Consistent end-use results are dependent solely on proper form design and concrete placement practices.

Allowable Stresses For FinnForm[®]

A = Moisture Content less than 19%.

B = Moisture Content 19% to 28%

Type of Stress	A—Effective Cross-section lbs./sq. in.	B—Effective Cross-section lbs./sq. in.
Extreme fibre in bending		
Face grain to span, 5 plies	3600	2500
Face grain to span, 7 plies or more	3600	2500
Face grain—to span, 5 or 7 plies	3200	2180
Face grain—to span, 9 plies or more	3600	2680
Tension		
to face grain, 5 or 7 plies	3800	3380
to face grain, 9 plies or more	3600	3160
— to face grain	3200	2650
Compression		
to face grain, 5 or 7 plies	2250	1450
to face grain, 9 plies or more	2100	1300
— to face grain	1850	1200

Recommended Moduli of Elasticity for FinnForm[®]

A = Moisture Content less than 19%.

B = Moisture Content 19% to 28%

Type of Stress	A—Effective Cross-section lbs./sq. in.	B—Effective Cross-section lbs./sq. in.
Bending (E)	2,030,000	1,830,000
Tension	2,400,000	2,140,000
Compression	2,320,000	1,960,000

Moments of Inertia, Section Moduli and Areas for FinnForm[®]

All values are effective, i.e. only plies with grain direction parallel to the span are taken into account.

Sanded Plywood Thickness		No. of Plies	Face grain parallel to span- 12" widths			Face grain perpendicular to span- 12" widths			
Nom.	Act.		Area Inches ²	Section Modulus Inches ³	Moments of Inertia Inches ⁴	Area Inches ²	Section Modulus Inches ³	Moments of Inertia Inches ⁴	Weight lbs./msf. (Approx)
1/4"	0.256"	5	1.75	0.0969	0.0124	1.32	0.0527	0.00435	930
3/8"	0.366"	7	2.41	0.178	0.0325	1.98	0.120	0.0166	1330
1/2"	0.472"	9	3.17	0.288	0.070	2.65	0.225	0.045	1765
5/8"	0.638"	12	4.34	0.480	0.150	3.31	0.395	0.112	2320
3/4"	0.747"	14	4.98	0.640	0.241	3.97	0.555	0.183	2715

Stock sizes: 8'x4', 10'x4', 12'x4', 8'x5', 10'x5', 12'x5'.

FinnForm Data Sheet

Please refer to FinnForm® Technical Bulletin "Care & Storage" for additional handling and usage information.

Concrete Forms

All data is based on support spacings in inches. Deflection 1/270 or 1/16" (.0625) moisture content less than 19%. All load tables should be used as guides only. Data employed assumes plywood will be used the strong way (face grain parallel to span). Note: FinnForm® is manufactured with the grain running in the narrow (4',5') direction unless otherwise noted. Plywood continuous over two (2) or more spans; support width minimum 1 1/2".

1/4"

Structural Data: M.O.E. 2,030,000

S .0969 | 0.0124 f (Bending) 3,600#

Max Loads at Indicated Spans: (PSF)

5.5"	6"	8"	10"	11"	12"	13"	14"
1380	1162	654	418	346	290	248	214

Max Loads at 1/270 Spans: (PSF)

5.5"	6"	8"	10"	11"	12"	13"	14"
977	752	317	163	122	94	74	53

3/8"

Structural Data: M.O.E. 2,030,000

S .178 | 0.0325 f (Bending) 3,600#

Max Loads at Indicated Spans: (PSF)

6"	8"	10"	11"	12"	13"	14"	16"
2134	1200	768	636	534	456	392	300

Max Loads at 1/270 Spans: (PSF)

6"	8"	10"	11"	12"	13"	14"	16"
1972	831	426	320	246	194	155	104

1/2"

Structural Data: M.O.E. 2,030,000

S .288 | 0.070 f (Bending) 3,600#

Max Loads at Indicated Spans: (PSF)

6"	8"	10"	12"	14"	16"	18"	20"
3453	1942	1243	863	634	486	384	311

Max Loads at 1/270 Spans: (PSF)

6"	8"	10"	12"	14"	16"	18"	20"
3453	1792	917	531	343	224	157	115

5/8"

Structural Data: M.O.E. 2,030,000

S .480 | 0.150 f (Bending) 3,600#

Max Loads at Indicated Spans: (PSF)

8"	10"	12"	14"	16"	18"	20"	22"
3237	2072	1439	1057	809	639	518	429

Max Loads at 1/270 Spans: (PSF)

8"	10"	12"	14"	16"	18"	20"	22"
3237	1966	1137	716	480	337	245	185

3/4"

Structural Data: M.O.E. 2,030,000

S .640 | 0.241 f (Bending) 3,600#

Max Loads at Indicated Spans: (PSF)

8"	10"	12"	14"	16"	18"	20"	22"
4316	2762	1918	1409	1079	853	691	572

Max Loads at 1/270 Spans: (PSF)

8"	10"	12"	14"	16"	18"	20"	22"
4316	2762	1828	1153	772	541	395	297

The data shown supercedes and replaces all previously published data for this product. January 1999