

Stress and Load Span Tables

These stress and load span tables simulate actual wet form conditions. Dry load span values are overstated and should not be used. Canadian (COFI) design values for Douglas Fir are 25% higher than APA

Stress Tables: Tables 1 & 2 herein are based on standard APA PS-1 criteria and T2008P-79 Veneer Stresses.

Stress Table – Dry Working Stress Design Capacities		
	Struct 1	Wet Adjust Factor
Nominal Thickness	17.5mm	
Number of Plies	7	
Table 1: Face Grain <i>Perpendicular</i> to Supports		
Bending Stiffness ¹	4.157	0.85
Bending Resistance ²	0.568	0.75
Planar Shear ³	6.391	0.75
Table 2: Face Grain <i>Parallel</i> to Supports		
Bending Stiffness ¹	1.835	0.85
Bending Resistance ²	0.392	0.75
Planar Shear ³	5.332	0.75

¹Bending Stiffness = EI* (kNm²/m);

²Bending Resistance = M or FS (kNm/m)

³Planar Shear Capacity: V or F lb/Q (kNm/m).

There is no DOL (Duration of Load) or Experience factor applied to EI, FbS and Fslb/Q.

Load Span Tables: Tables 3 & 4 are based on standard APA and PS-1 criteria.

Struct 1 LOAD SPAN TABLES – WET CONDITIONS		
Recommended Maximum kN/m ² on 17.5mm Panels		
Table 3: Face Grain <i>Perpendicular</i> to Supports ¹		
Support Spacing	Plywood Thickness – Allowable Pressure (kN/m ²)	
	Structural 1	
(mm)	λ/360	λ/270
100	234.9	234.9
200	89.8	89.8
300	52.5	55.5
400	24.5	32.6
500	13.1	17.5
Table 4: Face Grain <i>Parallel</i> to supports ¹		
Support Spacing	Plywood Thickness – Allowable Pressure (kN/m ²)	
	Structural 1	
(mm)	λ/360	λ/270
100	196.0	196.0
200	74.9	74.9
300	29.4	39.1
400	12.6	16.8
500	7.9	10.6

Notes: ¹Plywood continuous across two or more spans

These are total loads (weight of panel should be considered in horizontal applications)

DOL (Duration of Load) 1.25 and Experience factor of 1.30 used in load tables.

Form Panel Thickness: For more detailed design information, refer to APA publication "Plywood for Concrete Forming" and to American Concrete Institute publication "Formwork for Concrete".

Edge Support: In high moisture/sustained load conditions, edges may have a greater deflection than the panel centre and may exceed calculated deflection.

Suitability for Use and Warranty:

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Jobsite Care and Handling

- Product preparation:** OPP's MDO panels are factory release coated. However, lightly coat panels prior to first use and each subsequent use with Nox-Crete Form Coat or equivalent agent that will not bond with, stain, or adversely affect concrete surfaces. Follow the manufacturer's recommendations for application.
- Pouring and Vibrating:** Follow the rate of pour to reduce excessive pressure that can cause panel damage. Use rubber tipped vibrators and exercise care not to damage form faces.
- Stripping:** Prolong panel life with proper stripping and handling. Use wood wedges, rather than metal bars or pries, to separate the form from the concrete. Form panels must be lowered, not thrown or dropped, to avoid face and edge damage.
- Cleaning:** Storage and Edge Sealing: Clean panels after each use, employing burlap or flat, non-scratching tools such as plastic or wood scrapers. Reseal cut edges or exposed wood at holes or openings with two coats of a Styrene acrylic sealer. Stack panels flat and remove fasteners to prevent damage and warping. Store panels in a protected area and avoid direct sunlight
- Surface Repairs:** Remove form release agent, concrete & loose wood/overlay debris. Sand the damaged surface with coarse (80 grit) disc or paper. For architectural concrete, use fine (120 grit) for the damaged perimeter area. Clean all sanding debris from the repair area. Apply: W.R. Meadows - Rezi-Weld Gel Paste State, Euclid - Euco #620 Gel Epoxy System, or Sika - Sikadur AnchorFix. Use the Rezi-Weld Gel Paste State when the air temp is above 60° F, or the Euco #620 Gel or Sikadur AnchorFix-4 when the air temp is above 33° F. Scrape off the excess repair material using a putty knife. Allow repair material to cure for 24 hours (48 hours in cold weather) before sanding, then, feather sand the area.

Impact

Olympic Panel produces overlaid plywood from veneer processed at the Olympic plant and manufactured to the following principles:

- Logs and veneer originate in sustainable, secondary growth forests, which are managed to Federal and Washington State regulations.
- Hi-Flow[®] form can be certified to FSC[®] guidelines, FSC[®] C012353.
- Hi-Flow[®] form is LEED compliant and may contribute points for EQ Credit 4.4 for Emitting Materials: Composite Wood.
- Olympic Panel uses energy efficient, environmental control technology to reduce emissions to levels below federal and state guidelines.
- Olympic Panel uses process by-products to produce energy.
- Olympic products are renewable, biodegradable and recyclable.



The mark of responsible forestry

Warnings

This product contains 0.03 parts/million of residual formaldehyde from manufacturing. This product will generate wood dust from sawing, sanding, or shaping. Material Safety Data Sheets are available on Olympic's Web site at www.olypanel.com and upon request. Structural panels (PS-1) are exempt from California Air Resources Board regulations, however, this product is below CARB limits for all applications.

Olympic Panel's Concrete Form Product Family

- Premium Concrete Form:**
 - Barrier Film™** - inert to alkalinity for harsh concrete mixes
 - MultiPour®** - Architectural finish & high re-use
 - Classic® HDO** - Alkalinity resistance exceeds Doug fir HDO
 - Super-Matte™ MDO** - Matte finish, slight grain/patch transfer
- Industry Standard Concrete Form**
 - Basic™ HDO** - Economical Doug fir HDO 100/30
 - Hi-Flow® MDO** - Matte finish, high re-use
 - B-Matte® MDO** - Matte finish, high re-use

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