



# TEMPERED PLYRON® INDUSTRIAL PANEL

## Product Description:

Tempered Plyron® is an impact resistant, hardboard faced plywood with excellent paintability and printability.

## Panel Construction & Moisture Resistance:

Tempered Plyron® is constructed of tempered hardboard laminated to Douglas Fir/Hemlock plywood. It is produced with a 1 step layup, has a waterproof glue bond and meets APA PS 1-07 specifications. All Olympic products are made in the USA.



## Features and Benefits:

- High impact & wear resistance
- Grain free with superior paintability
- High strength, light weight
- High Face/Edge screwholding
- Very low Formaldehyde - meets proposed CARB requirements

## Working Faces/Treatment:

Tempered Plyron® is available with 2 working faces only. Face color is natural hardboard.

## Working Edges/Treatment:

- Edges are factory sawn, without edge treatment.
- Tongue and grooved edges meeting volume limits are available.
- For interior applications requiring edge banding, do not edge seal, otherwise, seal all edges using clear or pigmented Pre-Form by Nox-Crete or equivalent. Pre-Form can not be over coated.

## Applications:

- Wear-resistant flooring panels, stage floors
- Furniture, cabinets, displays, fixtures, casework
- Shelving & partitions

## Limitations:

Do not exceed design limitations imposed by the floor or shelving span tables. Tempered Plyron® is not designed for repetitive heavy wheel loads. It must be primed and top coated for exposure in exterior applications.

## Thicknesses & Sizes:

Tempered Plyron® is available in 1/2", 5/8" & 3/4" thicknesses. Standard panel sizes are 4' X 8' only. Non standard thicknesses meeting volume requirements are available.

## Product Grade

Standard product and Special Product are shipped allowing up to 10% total Good One Side (G1S) and/or Shop, identified & priced separately. Shipments of G1S and shop only may be available. Check with sales.

- **High impact & wear resistance**
- **Grain free with superior paintability**
- **High strength, light weight**
- **High Face/Edge screwholding**

## Technical Data Applicable Standards

All panels are manufactured by Olympic Panel Products per Product Standard PS1-07. This standard is available at [www.apawood.org](http://www.apawood.org).

Physical Properties <sup>1</sup>	1/2"	5/8" to 3/4"
Modulus of Rupture <sup>2,3</sup>	6,870 psi	6,655 psi
Modulus of Elasticity <sup>2,3</sup>	687,050 psi	683,860 psi
Lineal Expansion <sup>2,3</sup>	0.080%	0.098%
Thickness Swell	8.7%	9.6%
Water Absorption (24 Hours)	6.7%	6.8%
Internal Bond <sup>2</sup>	169 psi	134 psi
Shelf Stiffness EI ASTM D-3043 C	97,600 lb-in <sup>2</sup> /ft <sup>6</sup>	270,460 lb-in <sup>2</sup> /ft <sup>6</sup>
Shelf Bending FbS ASTM D-3043 C	2,720 lb-in/ft <sup>6</sup>	4,720 lb-in/ft <sup>6</sup>
Face Screw holding <sup>2</sup>	470 lbs	440 lbs
Edge Screw holding <sup>2</sup>	Not Applicable	398 lbs
Moisture Content <sup>2</sup> ASTM D-1037	6-9%	6-9%
Specific Gravity <sup>2</sup> ASTM D-1037	.784	.686
Density <sup>2</sup> ASTM D-1037	49.5 lbs/ft <sup>3</sup>	43.0 lbs/ft <sup>3</sup>
Janka Hardness <sup>2</sup> ASTM D-1037	1,428 lbs	950 lbs
Flame Spread ASTM E-84	76 - 2006 <sup>5</sup>	76 - 2006 <sup>5</sup>
Smoke Developed ASTM E-84	25 - 2706 <sup>5</sup>	25 - 2706 <sup>5</sup>
Flame/Smoke spread rating E-84	Class C	
Formaldehyde level E-1333	0.01 parts/million	

Panel Tolerances <sup>2</sup>	1/2" to 3/4"
Thickness Tolerance	+/- 1/32" (.031")
Length & Width Tolerance	+0, -1/16" (.062")
Squareness	1/16" (.062")
Straightness	1/16" (.062")

<sup>1</sup>Panel Average. Product averages vary for individual thicknesses, consult sales or technical staff for exact properties <sup>2</sup>All tolerances and specifications apply at the time of manufacture.

<sup>2</sup>ANSI 208.1 test result

<sup>3</sup>Calculations based on test averages of along and across grain

<sup>4</sup>Shelving physical properties based on limited 5 panel average. See web site for load table

<sup>5</sup>Flame and Smoke spread properties based on engineering calculations

<sup>6</sup>Shelving stiffness/bending properties are based on a limited 5 panel average

## Tempered Plyron® Floor Loads and Span Ratings

Tempered Plyron Recommended Uniform Floor Live Load and Span Rating With Strength Axis 8' direction to Supports							
Panel Thickness	Allowable Live Loads <sup>2</sup> (lbs per Square foot)						
	12"	16"	20"	24"	30"	32"	36"
5/8"	810	365	220	115	60	50	40
3/4"	990	550	335	175	90	75	65

Tempered Plyron Recommended Uniform Floor Live Load and Span Rating With Strength Axis 4' direction to Supports							
Panel Thickness	Allowable Live Loads <sup>2</sup> (lbs per Square foot)						
	12"	16"	20"	24"	30"	32"	36"
5/8"	600	250	180	90	20	--	--
3/4"	800	425	300	155	35	30	20

<sup>2</sup>10 psf dead load assumed, Live Load deflection limit is 1/360

Note: Complete fastener schedules for glue nailed and nailed only fasteners are available from<sup>1</sup>From APA The Engineering Wood Association's Engineering Wood Construction Guide, Form E30T, 2005, Table 10:

## Standard Packaging:

Thickness	Tempered Plyron® 2 Face Average* Weight Lbs./SF	Tempered Plyron® 2 Face Average* Weight lbs/panel	Pieces per Unit
1/2"	2.093	67.0	66
5/8"	2.350	75.2	50
3/4"	2.833	90.7	44

Average product weights may vary +/- 10%

## Tempered Plyron® Shelving Load Span Table

Span <sup>1</sup>	1/2"		5/8"		3/4"	
	ℓ/240	ℓ/180	ℓ/240	ℓ/180	ℓ/240	ℓ/180
4"	1,457	1,457	2,340	2,340	2,870	2,870
8"	560	560	900	900	1,104	1,104
12"	347	347	557	557	683	683
16"	186	248	282	377	495	495
19.2"	109	145	170	227	365	405
24"	56	75	90	119	198	264
30"	28	38	46	62	105	139
32"	23	31	38	51	87	116
36"		22	27	36	61	82
40"				26	45	60
48"					30	40
60"						

Span <sup>1</sup>	1/2"		5/8"		3/4"	
	ℓ/240	ℓ/180	ℓ/240	ℓ/180	ℓ/240	ℓ/180
4"	1,457	1,457	1,811	1,811	2,208	2,208
8"	560	560	696	696	849	849
12"	347	347	431	431	526	526
16"	251	251	312	312	381	381
19.2"	182	206	256	256	312	312
24"	91	121	168	201	245	245
30"	45	60	85	113	159	194
32"	37	49	70	93	131	175
36"	26	34	48	65	92	122
40"		25	35	47	66	89
48"			23	31	44	58
60"					22	29

Span <sup>2</sup>	1/2"		5/8"		3/4"	
	ℓ/240	ℓ/180	ℓ/240	ℓ/180	ℓ/240	ℓ/180
4"	1,822	1,822	2,926	2,926	3,588	3,588
8"	701	701	1,063	1,125	1,380	1,380
12"	215	287	333	445	709	854
16"	88	117	141	188	311	415
19.2"	50	66	81	108	181	242
24"	25	33	41	54	93	124
30"			20	27	47	63
32"				22	39	52
36"					27	36
40"						26
48"						

Span <sup>2</sup>	1/2"		5/8"		3/4"	
	ℓ/240	ℓ/180	ℓ/240	ℓ/180	ℓ/240	ℓ/180
4"	1,822	1,822	2,263	2,263	2,760	2,760
8"	701	701	870	870	1,062	1,062
12"	363	434	539	539	657	657
16"	142	190	264	352	476	476
19.2"	79	106	148	197	277	370
24"	39	52	73	97	138	184
30"		26	36	48	69	92
32"		21	30	40	56	75
36"			21	27	39	52
40"					28	38

Maximum allowable loads are psf. Uniform loading is assumed. Loads are for dry conditions. For wet conditions, reduce loads approximately 25%. Inquire for precise data. Basic allowable stresses (bending F<sub>b</sub> and shear F<sub>v</sub>) increase 15% for shelving use per the APA experience factor. Pallet design normally is based on higher allowable loads than given. NOTES: <sup>1</sup>Spans are center-to-center of supports. <sup>2</sup>Span is out-to-out of supports. Allow for 1-1/2" supports on each end.

## Tempered Plyron® Finishing Instructions

General: Do not use interior grade paints, water base vinyl-acrylic, solvent based alkyd flat or alkyd solid color stains.

- Prime Coat:** Use a high quality Acrylic Latex primer. For good performance, 2 coats of primer should yield about 2 mil dry film thickness. Follow the manufacturer's spread rate recommendation.
- Top Coat:** Use 2 coats of high quality Acrylic Latex top coat from the same manufacturer as the primer to ensure compatibility. Follow the manufacturer's application instructions for best results. A total for four mills coating thickness should be applied.
- Edge Coating:** For interior applications requiring edge banding, do not edge seal, otherwise, seal all edges using clear or pigmented Pre-Form by Nox-Crete or equivalent. Pre-Form can not be over coated.

## Suitability for Use and Warranty

Nothing herein constitutes a warranty express or implied, including any warranty of merchantability or fitness for use, nor is protection from any law or patent to be inferred. The exclusive remedy for all claims is replacement of materials. Contact the sales office for a copy of the complete Olympic Terms and Conditions of Sale.

## Warehouse Storage and Handling

- Store in a dry, clean, well-ventilated area indoors.
- Avoid temperatures and moisture extremes. Allow panels to equalize for 72 hours or more before use.
- Pieces must not be stored in contact with the ground.
- Limit the stacking height to four or five units. Separate units with clean, dry spacers of uniform thickness, aligned carefully. Use three spacers for panels 8' long.

## Environmental Impact

Olympic Panel produces overlaid softwood plywood from veneer peeled at the Olympic plant and from purchased veneer. All veneer and plywood panels are manufactured in accordance with the following principals:

- Logs and veneer originate in sustainable, secondary growth forests, which are managed according to Federal and State laws and regulations.
- 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's products are renewable, biodegradable and recyclable.

## Warnings

This product contains 0.01 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](http://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 uses.

## Industrial Panels

- **DecraGuard®** - Polyester overlay for marine partitions, bulkheads & cabinets.
- **Cabinet Liner™** - Polyester overlay for cabinets, displays and fixtures.
- **Tuf-Tred®** - Skid-resistant, embossed, poly-glass overlay.
- **SkidGuard®** - Slip-resistant, screen embossed HDO.
- **Tempered Plyron®** - hardboard faced/veneer core, paintable, wear-resistant flooring panels.
- **Standard Plyron®** - paintable panels for furniture, cabinet, display, fixture & partitions.

Plyron® is a registered trademark of the APA, the Engineered Wood Association

## Olympic Panel Technical/Sales Information

204 East Railroad Avenue; Shelton, WA 98584  
 Sales phone: 800-782-7265 Sales Fax: 360-432-5081  
[www.olypanel.com](http://www.olypanel.com)

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