Olympic PANEL & VENEER

B-MATTE® 333

Concrete Form

- Matte finish for coated concrete
- Factory applied Nox-Crete FormCoat
- Twice the form oil retention of regular MDOs
- Balanced construction ensures panel stability
- Increased # of pours & reduced cost/pour

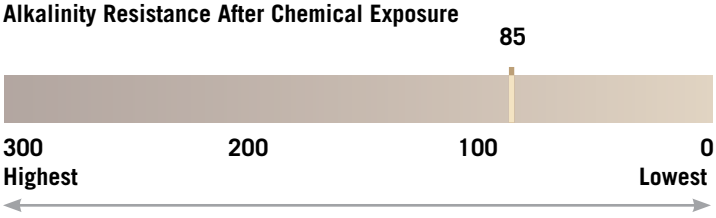
Product Description:
B-Matte® 333 is a standard, medium-density overlaid plywood for matte finishes with a release coating factory applied. It is a work-horse form that provides enhanced alkalinity resistance vs. regular MDOs.

Panel Construction/Moisture Resistance:
B-Matte® 333 is an MDO on Doug Hem plywood. It is made with a one-step layup, has a waterproof glue bond and meets APA PS 1-09. All Olympic products are made in the USA.

Working Faces/Treatment:
- B-Matte® 333 is available with one (standard) or two (optional) working faces. Panels with a single working face have a fir back.
- Gloss level of concrete surface: matte
- Wood grain transfer to concrete surface: moderate
- Wood defect transfer to concrete: moderate
- Sugaring: none
- Maintenance: occasional

Working Edges/Treatment:
- Factory sawn and sealed with special gray styrene acrylic sealer
- Seal all exposed wood (edges and holes) with Edge Flex 235 by Nox-Crete, Olympic Form Seal by Willamette Valley Co. or equivalent to prevent concrete staining from the wood sugars

Alkalinity Resistance After Chemical Exposure



The Abrasion and Chemical Resistance Test reflects the expected panel life in the field. The higher the index number, the more resistant to alkalinity/abrasion.

Structural/load Performance Summary
B-Matte® 333 is available in Struct 1 or Class 1 only. Allowable pressure ℓ/270 ¾" @ 12" OC (face gain across supports): Struct 1- 1105 PSF, Class 1- 885 PSF

Typical Pour Ranges:
- Engineered systems: not recommended
- Gang forms: up to 20 pours
- Job built: up to 10 pours
- Pour ranges are not guaranteed because the number of pours will vary due to jobsite handling and panel maintenance, vertical or horizontal use, form release agent, concrete mix design/strength, alkalinity, pour rate and other factors

Other Applications:
- Pallets, bins, totes, crates, reels
- Tanks, vats, freezer liners, storage lockers, trunks and shelving
- Animal enclosures, farm buildings & equipment

Release Coating:
- Release agent: not factory treated
- Coating required: light before first and each subsequent pour
- Recommended release agent: Nox-Crete PCE/PCS or equivalent. Avoid release agents containing fuel oils, recycled oils or solvents

Limitations:
Do not exceed design limitations imposed by the load span table. Conform to concrete form design procedures based on American Concrete Institute (ACI) standard 347-04. Release agents are required. Do not employ used concrete form for structural applications. Do not coat or laminate this panel without surface preparation. For coating or laminating information, ask Olympic for technical assistance.

Thicknesses & Sizes:
B-Matte® 333 is available in 1/2", 5/8", 3/4" & 1-1/8". Standard panel sizes are 2' & 4' X 8' & 10'. Properties shown apply to 8' B-Matte® 333 only. Inquire for availability and specific 10' properties. Non-standard thicknesses, widths and lengths meeting volume requirements are available.

Technical Data Applicable Standards
All panels are manufactured by Olympic Panel per product standard PS1-09. This standard is available at www.apawood.org.

Physical Properties	3/8" to 1/2"	5/8" to 1-1/8"
Check Resistance – APA Test #6	1.0mm	1.0mm
Moisture Resistance (cobb) 8-hour Soak	4.5 g/sq. ft.	4.5 g/sq. ft.
Alkalinity Resistance After Chemical Exposure D/T	85	85
Formaldehyde Level ASTM E-1333	0.03 parts/million	

Panel Tolerances	3/8" to 3/4"	1" & Greater
Thickness Tolerance	+/- 1/32" (.031")	+/- 5%
Length & Width Tolerance	+0, -1/16" (.062")	+0, -1/16" (.062")
Squareness	1/16" (.062")	1/16" (.062")
Straightness	1/16" (.062")	1/16" (.062")

Note: All tolerances and specifications apply at the time of manufacture.
Note: Product averages vary for individual thicknesses. Consult sales or technical offices for exact properties.

Standard Packaging:

Thickness	B-Matte® 333 MDO 1 Face, Fir Back Average Weight* lbs./SF	B-Matte® 333 MDO 1 Face, Fir Back Average Weight* lbs./SF	Pieces per Unit
1/2"	1.500	1.600	66
5/8"	2.187	2.100	50
3/4"	2.300	2.175	44
1-1/8"	3.300	3.300	30

*Average product weights may vary +/- 10%

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

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 APA and commercial standards PS-1 criteria.

Stress Table – Dry, Working Stress Design Capacities – 4' X 8' & 10'					
	Struct 1		Class 1		Wet Adjust Factor
Nominal Thickness	1/2"	3/4"	1/2"	3/4"	
Number of Plys	5	7	5	7	
Table 1: Face Grain *Perpendicular* to Supports[1]					
Bending Stiffness[1]	138,226	467,824	137,226	421,415	.85
Bending Resistance[2]	393	875	391	789	.75
Planar Shear[3]	267	360	199	262	.75
Table 2: Face Grain *Parallel* to Supports[1]					
Bending Stiffness[1]	40,100	191,029	34,054	160,967	.85
Bending Resistance[2]	207	551	152	402	.75
Planar Shear[3]	145	302	103	229	.75

[1]Bending Stiffness = EI* (lb-in^2/ft); [2]Bending Resistance = M or F_bS (lb-in/ft); [3]Planar Shear Capacity: V or F_sIb/Q (lb/ft). There is no DOL (Duration of Load) or experience factor applied to EI. FbS and FsIb/Q.

Load Span Tables: Tables 3 through 6 are based on APA and PS-1 criteria.

Struct 1 LOAD SPAN TABLES – WET CONDITIONS Recommended Maximum PSF on Struct 1 Panels								
Table 3: Face Grain *Perpendicular* to Supports[1]								
Support Spacing	Plywood Thickness – Allowable Pressure (PSF)							
	5/8"		3/4"		7/8"		1-1/8"	
(in.)	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270
8"	1.970	1,970	2,050	2,050	2330	2330	3,095	3,095
12"	745	875	1,060	1,115	1440	1440	1,845	1,845
16"	350	450	505	575	760	1015	1,335	1,335
19.2"	195	265	305	405	475	630	1,015	1,015
24"	100	135	160	210	260	345	625	650
Table 4: Face Grain *Parallel* to Supports[1]								
Support Spacing	Plywood Thickness – Allowable Pressure (PSF)							
	1/2"		5/8"		3/4"		1-1/8"	
(in.)	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270
8"	1,115	1,115	1,685	1,685	2,000	2,000	2,525	2,525
12"	430	575	715	810	1240	1240	1,560	1,560
16"	180	240	310	415	620	825	1,000	1,000
19.2"	125	170	220	250	445	595	555	555
24"			110	150	235	310	355	355

Notes: [1]Plywood 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.

Class 1 LOAD SPAN TABLES – WET CONDITIONS Recommended Maximum PSF on Class 1 Panels								
Table 5: Face Grain *Perpendicular* to Supports[1]								
Support Spacing	Plywood Thickness – Allowable Pressure (PSF)							
	1/2"		5/8"		3/4"		1-1/8"	
(in.)	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270
8"	1.970	1,970	2,050	2,050	2330	2330	3,095	3,095
12"	745	875	1,060	1,115	1440	1440	1,845	1,845
16"	350	450	505	575	760	1015	1,335	1,335
19.2"	195	265	305	405	475	630	1,015	1,015
24"	100	135	160	210	260	345	625	650
Table 4: Face Grain *Parallel* to Supports[1]								
Support Spacing	Plywood Thickness – Allowable Pressure (PSF)							
	1/2"		5/8"		3/4"		1-1/8"	
(in.)	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270	ℓ/360	ℓ/270
8"	392	434	747	747	1,175	1,175	1,819	1,819
12"	145	167	409	466	596	648	1,167	1,167
16"			167	213	273	364	749	749
19.2"				163	194	216	404	448
24"					100	135	241	289

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 center and may exceed calculated deflection.

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, fouror five spacers for longer panels.

Jobsite Care and Handling

1. **Product preparation:** OPv's HDO panels are not factory release coated. Lightly coat panels prior to first use and each subsequent use with Nox-Crete PCE/PCS or equivalent agent.
2. **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.
3. **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.
4. **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.
5. **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.

Environmental Impact

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

- Logs and veneer originate in sustainable, secondary growth forrests, which are managed according to federal and state laws and regulations
- Olympic Panel uses energy efficient, environmental control technology to reduce emissions and exceed government requirements
- Olympic Panel uses process by-products to produce energy
- Olympic's products are renewable, biodegradable and recyclable

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 website 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 uses.

There's more than one reason Olympic Panel is #1 in the concrete forming industry. Find out more at www.olypanel.com

Olympic
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