



# Pacific Wood Laminates, Inc.

## PROFACE™ MDO SPECIFICATION SHEET OVERLAY SYSTEM

Arclin Overlays <b>FACE SHEET</b> 333 MDO (MEDIUM DENSITY OVERLAY)					
Resin Content	35%	Base Paper Weight	41# MSF	GSM	200
		Core Resin Weight	33# MSF	GSM	162
		<b>Total Weight</b>	<b>74# MSF</b>	<b>GSM</b>	<b>362</b>

PANEL FEATURES		
Face Veneer	----	Fine Grain Proprietary Imported Hardwood (no wood patches)
Back Veneer	----	"C" Grade Douglas Fir Veneer
Inner Plies	----	"C" Grade Veneers
Resin	----	Phenolic Exterior Glue
Size	----	48" X 96"
Thickness	----	1/2 - 1 1/8
Edge Seal	----	Nox-Crete Edge Flex 235
Release Agent	----	Nox-Crete Form Coating 250
Stamp	----	APA Trademark

SPAN TABLES														
Support	FACE GRAIN ACROSS SUPPORTS						ONE STEP	Support	FACE GRAIN PARALELL TO SUPPORTS					
	3/4		17.5 / 11/16		5/8				3/4		17.5 / 11/16		5/8	
Spacing	L/360	L/270	L/360	L/270	L/360	L/270	Spacing	L/360	L/270	L/360	L/270	L/360	L/270	
4"	5355	5355	4910	4910	4334	4334	4"	4310	4310	3935	3935	3516	3516	
8"	2060	2060	1890	1890	1647	1647	8"	1660	1660	1355	1355	1118	1118	
12"	965	965	895	895	732	732	12"	715	805	520	600	388	497	
16"	510	545	460	505	335	412	16"	310	415	220	295	163	218	
19.2"	310	375	275	350	198	264	19.2"	225	250	160	190	116	154	
24"	165	220	145	195	103	137	24"	115	155	-----	110	-----	-----	

## Arclin™ Readyform 3333

### DESCRIPTION

**Arclin™ Readyform 3333**, premium concrete form overlay, is an MDO which represents the new benchmark in concrete form overlay performance. Using advanced resin formulations, **Arclin™ Readyform 3333** significantly increases performance in plywood products for reusable concrete forms. **Arclin™ Readyform 3333** conforms to requirements of the U.S. Product Standard PS1-95 for Construction and Industrial Plywood. **Arclin™ Readyform 3333** is a phenolic resin impregnated overlay specifically designed to provide a smooth surface on engineered wood products to allow for multiple reuse of panels in concrete pours.

### PHYSICAL PROPERTIES AND SPECIFICATIONS

	<b>North American Standard</b>	<b>Export Metric Standard</b>
<b>Color</b>	Kraft Brown	Kraft Brown
<b>Resin content</b>	35%	35%
<b>Raw paper weight</b>	41# /MSF	200 gsm
<b>Finished paper weight</b>	74# /MSF	362 gsm
<b>Thickness before pressing</b>	0.019 in.	0.47 mm
<b>Thickness after pressing</b>	0.013 in.	0.33 mm
<b>Number of 4' x 8' sheets per bundle</b>	1,000	900
<b>Total area per standard 4' x 8' bundle</b>	34,375 ft. <sup>2</sup>	2,874 m <sup>2</sup>
<b>Total gross weight per 4' x 8' bundle</b>	2,690 lbs.	1,223 kg

### TECHNICAL INFORMATION

#### **STORAGE CONDITIONS**

We recommend storage in a cool, dry place with the original wrapping intact. Ideal conditions are less than 50% relative humidity, and 25°C (77°F) or below. Contact Arclin's technical staff before using a product over one year old.

#### **PRESSING SCHEDULE**

Please consult Arclin's technical personnel to develop the best pressing conditions for your application.

#### **PANEL EDGE SEAL**

Seal all edges with a high quality edge-sealer to provide moisture protection and resistance.

#### **RELEASE AGENT**

For optimum performance we recommend concrete form panels to be coated with Nox-Crete or an equivalent chemically active release agent.

## **STANDARD SIZES**

### **Sheets**

<b>Size</b>	<b>North American Standard</b>	<b>Export Metric Standard</b>
4' x 8'	50" x 99"	1270 x 2515 mm
4' x 10'	50" x 124"	1270 x 3150 mm
4' x 12'	50" x 148"	1270 x 3759 mm
5' x 8'	62" x 99"	1574 x 2515 mm
5' x 10'	62" x 124"	1574 x 3150 mm
5' x 12'	62" x 148"	1574 x 3759 mm

### **Rolls**

<b>Size</b>	<b>North American Standard</b>			<b>Export Metric Standard</b>		
	<b>Width Feet</b>	<b>Width Inches</b>	<b>Length Feet</b>	<b>Width mm</b>	<b>Length M</b>	<b>Diameter mm</b>
4	50	1,300	22	1270	396	559
5	62	1,300	22	1560	396	559

Other sizes available on request depending on paper availability and commercial agreements

### **Typical container configurations – Export (can vary)**

<b>Container</b>	<b>Sheets per bundle</b>	<b>Bundles per container</b>	<b>Rolls per container</b>
20 foot	900	8	44
40 foot	900	16	88



# EDGE-FLEX 235

Maximum performance edge sealer  
specifically formulated for use on concrete form panels.

## HOW IT WORKS

EDGE-FLEX 235 prevents the absorption of highly alkaline concrete bleed water into the edges of plywood and oriented strand board (OSB) concrete form panels by penetrating the edges and sealing off the wood fibers with an extremely durable, yet very elastic, film which expands and contracts with the substrate.

## APPLICATIONS

- ◆ Use in sealing the edges of all types of manufactured wood form panels, including plywood and oriented strand board (OSB) to be used in concrete forming applications.
- ◆ Use to seal all field-cut panel edges and snap-tie holes.
- ◆ For reapplication over poor performing mill applied edge sealants.
- ◆ Essential for use on all manufactured wood form panels to be used in the production of architectural concrete.

## ADVANTAGES

- ◆ Completely resistant to the higher alkalinity of many modern concrete mix designs.
- ◆ Reduces alkaline water absorption through panel edges by up to 95%.
- ◆ By minimizing water absorption into the panel edges, wood sugar and tannin migration is simultaneously minimized, reducing concrete color variations, staining and concrete surface dusting.
- ◆ Significantly reduces panel edge swelling and the related elevation variations from panel to panel that are commonly seen in gang forming applications. Panel elevation variations yield unsightly concrete surface elevation variations that are often unacceptable to owners and are costly to repair.
- ◆ Panel life is greatly increased. This is especially true with higher performance overlaid panels (HDO, PSF and CBF) where panel failure almost always originates at the edges.
- ◆ Provides excellent resistance to ultra-violet radiation from the sun.
- ◆ Exceptional resistance to commonly used form oils and form release agents.

- ◆ DOT classified as non-flammable and non-combustible and is considered safe to apply under most manufacturing or field conditions.
- ◆ Unlike competitive edge sealers, EDGE-FLEX 235 is not only available to plywood and OSB producers, but is also available to concrete forming contractors through local concrete form and accessory distributors throughout North America.
- ◆ Green Engineered™ – better for health and the environment.
- ◆ Meets all federal and state VOC requirements.

## ▲ PRECAUTIONS ▲

- ◆ Do not apply to wet substrates.
- ◆ Do not apply to substrates that have been covered with a form oil or other coating/surface treatment that could interfere with the proper penetration and adhesion of EDGE-FLEX 235.
- ◆ Do not overapply. Excess application of EDGE-FLEX 235 that results in runs, drips or excess on offset panel edges can glue stacked panels together unless excess is removed from the face and back of panels before drying.
- ◆ Protect from freezing. If allowed to freeze, product packaging may rupture and the emulsion stability of this product may be affected, making it difficult to keep product mixed during application. Product which is suspected of freezing should not be used.
- ◆ Verify that product is within the “USE BY” date stated on product packaging. Do not use expired product. The use of expired product may result in poor product performance or failure.
- ◆ Treated substrates should be protected from exposure to water and freezing temperatures until the EDGE-FLEX 235 application has completely dried. Product dry time will vary depending on the ambient temperature and relative humidity at the time of application. The dry time at 70° F (21° C) and 50% relative humidity is approximately 1 hour.

## USE INSTRUCTIONS

- ◆ Request current product literature, labels and material safety data sheets from manufacturer and read thoroughly before product use.

EDGE-FLEX 235

form treatments



chemical solutions to concrete problems

- ◆ Site environmental conditions, substrate conditions and construction have a major impact on product selection, application methods, procedures and rates, appearance and performance. Product literature provides general information applicable to some conditions. However, an adequate site test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify that product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.
- ◆ Ambient air and substrate temperatures must be in excess of 40° F (5° C).
- ◆ Mix thoroughly before using and intermittently during use.
- ◆ Apply to panel edges using a brush, roller or airless spray equipment in two successive coats, applying the second coat immediately after applying the first coat (wet on wet).
- ◆ Avoid runs or drips in both coats.
- ◆ The application rate of EDGE-FLEX 235 varies with the substrate porosity and saw cut roughness. Typical combined effective application rate for both coats is 100-150 sf/gal (2.5-3.75 sm/l) for optimum masking properties and performance.
- ◆ Application equipment should be cleaned with water immediately after use. EDGE-FLEX 235 develops a skin within a few minutes after application. Once this skin develops, water will no longer remove the coating and an aromatic solvent such as xylene must be used.

**TECHNICAL DATA**

Bulk Density .....8.50 lbs/gal (1.02 kg/l)  
 Freeze Point ..... 32° F (0° C)  
 pH ..... 10  
 Brookfield Viscosity ..... 550 cp  
 Freeze/Thaw Stability ..... Poor

**AVERAGE IMPROVEMENT IN WATER  
 WEIGHT GAIN COMPARED TO  
 UNSEALED CONTROL**

	<u>3.5 Hours</u>	<u>10 Hours</u>	<u>24 Hours</u>
Percent Improvement	414%	368%	261%

**PACKAGING**

Packaged in 1 gal (3.8 l) jugs, 5 gal (19 l) pails, 55 gal (208 l) drums and 275 gal (1,041 l) bulk totes.

**SHELF LIFE**

Shelf life is nine months. Use before the "USE BY" date stated on product packaging.

**HANDLING/STORAGE**

Store in a dry location within a temperature range between 40° F (4° C) and 100° F (38° C).

**AVAILABILITY &  
 TECHNICAL SERVICES**

In addition to corporate offices in Omaha, Nebraska, NOX-CRETE Products Group also maintains regional offices and distribution centers in principal markets throughout the world. For source or technical information, phone (800) 669-2738 or (402) 341-1976.

**LIMITED WARRANTY**

**NOTICE-READ CAREFULLY**

**CONDITIONS OF SALE**

NOX-CRETE offers this product for sale subject to, and Buyer and all users are deemed to have accepted, the following conditions of sale and limited warranty which may only be varied by written agreement of a duly authorized corporate officer of NOX-CRETE. No other representative of or for NOX-CRETE is authorized to grant any warranty or to waive limitation of liability set forth below.

**WARRANTY LIMITATION**

NOX-CRETE warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, NOX-CRETE will replace the defective product with new product without charge to the purchaser.

NOX-CRETE makes NO OTHER WARRANTY, either express or implied, concerning this product. There is NO WARRANTY OF MERCHANTABILITY. In no case shall NOX-CRETE be liable for special, indirect or consequential damages resulting from the use or handling of the product and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which damages are claimed.

**INHERENT RISKS**

NOX-CRETE MAKES NO WARRANTY WITH RESPECT TO THE PERFORMANCE OF THE PRODUCT AFTER IT IS APPLIED BY THE PURCHASER, AND PURCHASER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OR APPLICATION OF THE PRODUCT.

# UTILITY RELEASE CONCENTRATE

## (PLYWOOD MILL USE)

Concentrated, chemically active, water based, general purpose concrete form release agent.

UTILITY RELEASE CONCENTRATE  
(PLYWOOD MILL USE)

form release agents

### HOW IT WORKS

UTILITY RELEASE CONCENTRATE is an economical, concentrated concrete form release agent that contains a patented, chemically reactive technology that reacts with the alkalis in concrete to form a metallic soap film that prevents form sticking and concrete buildup on the form surface.

### APPLICATIONS

- ◆ Use on BB Plyform® or other concrete form panels using existing roll coaters or spray systems at current application rate.

### ADVANTAGES

- ◆ Alternative to higher cost petroleum oils currently being used.
- ◆ Superior performance to petroleum oils.
- ◆ Easily diluted and stays mixed well.
- ◆ 100% biodegradable.
- ◆ Eliminates oil buildup on application machinery and floors.
- ◆ Dries fast and is not slippery.
- ◆ Allows for edge sealing to be done after oiling.
- ◆ Eliminates need for bulk oil tanks.
- ◆ Nonflammable.
- ◆ Very low odor.
- ◆ Increases panel durability.
- ◆ Resists removal from panel by normal rain showers.
- ◆ Reduces form maintenance costs by reducing concrete buildup.
- ◆ Meets all federal and state VOC requirements.

### PRECAUTIONS

- ◆ Product is supplied in concentrated form and must be diluted with water prior to application on panels.
- ◆ UTILITY RELEASE CONCENTRATE does not require protection from freezing temperatures unless diluted with water. Once diluted, do not allow product to completely freeze or it may be rendered unsuitable for use.

### USE INSTRUCTIONS

- ◆ Request current product literature, labels and material safety data sheets from manufacturer and read thoroughly before product use.
- ◆ UTILITY RELEASE CONCENTRATE must be diluted prior to use. The dilution rate is one part UTILITY RELEASE CONCENTRATE to eight parts water. To facilitate this dilution requirement, NOX-CRETE will furnish at no charge a metering system that will accurately dilute and mix the two components and deliver them to the oiling system in a ready-to-use condition.
- ◆ The metering system described above is typically located in close proximity to the mill oiling system. Mill requirements for the metering system include:
  - 1) 3/4-inch water line with a minimum of 60 psi.
  - 2) 1/2-inch air line with a minimum of 80 psi.
  - 3) One 110-volt, 15-amp circuit with duplex outlet and one 220-volt, 30-amp circuit without outlet.
  - 4) If UTILITY RELEASE CONCENTRATE is purchased in totes, mill tote placement must be within 15 feet of metering system location.
- ◆ Panel surface temperature must be in excess of 32° F (0° C) to prevent product from freezing during application.
- ◆ UTILITY RELEASE CONCENTRATE can be applied with a conventional roll coater or spray system. The recommended application rate is 400-500 sf/gal (10.0-12.5 sm/l).
- ◆ Application equipment and overspray can be cleaned with soap and water.

### TECHNICAL DATA

Bulk Density.....	7.7 lbs./gal. (0.92 kg/l)
Flash Point .....	>200° F (>93° C)
VOC .....	<150 g/l
VP .....	<10.0 mmHg

### PACKAGING

Product is supplied in 275 gal (1040 l) totes or in bulk.



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## **SHELF LIFE**

One year from date of manufacture. Use before expiration date stenciled on the container.

## **HANDLING/STORAGE**

Store product in a dry area away from excessive heat, sparks and open flame. If diluted with water, protect from freezing.

## **AVAILABILITY & TECHNICAL SERVICES**

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## **LIMITED WARRANTY**

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### **WARRANTY LIMITATION**

NOX-CRETE warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, NOX-CRETE will replace the defective product with new product without charge to the purchaser.

NOX-CRETE makes NO OTHER WARRANTY, either express or implied, concerning this product. There is NO WARRANTY OF MERCHANTABILITY. In no case shall NOX-CRETE be liable for special, indirect or consequential damages resulting from the use or handling of the product and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which damages are claimed.

### **INHERENT RISKS**

NOX-CRETE MAKES NO WARRANTY WITH RESPECT TO THE PERFORMANCE OF THE PRODUCT AFTER IT IS APPLIED BY THE PURCHASER, AND PURCHASER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OR APPLICATION OF THE PRODUCT.



# UTILITY RELEASE

Super concentrated, chemically active, water based,  
general purpose concrete form release agent.

## HOW IT WORKS

UTILITY RELEASE is an economical, super concentrated concrete form release agent that chemically reacts with the alkalis in concrete to form a slippery soap film that prevents form sticking and concrete buildup on form surfaces.

## APPLICATIONS

- ◆ Use on bare plywood, plywood faced handset forms and steel.
- ◆ Use in commercial and residential concrete forming applications.

## ADVANTAGES

- ◆ Economical alternative to higher cost specialty type form release agents where cost per gallon considerations outweigh performance requirements.
- ◆ Chemically active.
- ◆ Dries fast and is not slippery.
- ◆ Resists removal by normal rain showers.
- ◆ Easily diluted and stays mixed well.
- ◆ Can be diluted with water, kerosene or fuel oil.
- ◆ Variable dilution rate allows user the freedom to maximize product performance on many different forming substrates by simply adjusting the diluent mix ratio.
- ◆ Performs well on plywood and steel form surfaces.
- ◆ Reduces form maintenance costs by reducing concrete buildup.
- ◆ Can also be used as a form maintenance coating to soften concrete buildup on forms and equipment by simply reducing the dilution ratio.
- ◆ Will not freeze unless diluted with water.
- ◆ Low odor - does not contain fuel oil.
- ◆ Nonflammable.
- ◆ Green Engineered™ – better for health and the environment.
- ◆ Meets all federal and state VOC requirements.

## ▲ PRECAUTIONS ▲

- ◆ Water based, chemically active form release agents are not visible on applied surfaces once dry.

This is normal and does not affect release agent performance. After form stripping, a white, powdery film will be present on form surfaces. This causes no adverse affects on the form or the concrete and should not be confused with buildup.

- ◆ Not recommended where forms are to be removed in less than 12 hours, unless artificial heat is used to hasten concrete cure.
- ◆ UTILITY RELEASE is not freezable unless diluted with water. If diluted with water and allowed to freeze, product may be rendered unsuitable for use.
- ◆ Do not use in the manufacture of architectural concrete without prior approval of a field-scale mock-up.
- ◆ Protect coated form surfaces from rain for a minimum of 2 hours or until UTILITY RELEASE has dried.
- ◆ Diluting UTILITY RELEASE with a petroleum distillate such as kerosene or fuel oil may result in exceeding federal or state VOC regulations. Contact NOX-CRETE for specific information concerning your application.

## USE INSTRUCTIONS

- ◆ Request current product literature, labels and material safety data sheets from manufacturer and read thoroughly before product use.
- ◆ Site environmental conditions, substrate conditions and construction have a major effect on product selection, application methods, procedures and rates, appearance and performance. Product literature provides general information applicable to some conditions. However, an adequate site test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify that product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.
- ◆ Form surfaces do not have to be completely dry in order to apply UTILITY RELEASE. Small quantities of water on the form surface, such as dew, will not affect its performance.
- ◆ UTILITY RELEASE must be diluted prior to use. Product may be diluted with water, kerosene or fuel oil (see PRECAUTIONS). Typical dilution rate is one part UTILITY RELEASE to seven parts diluent, or in other words, one quart UTILITY RELEASE to seven

UTILITY RELEASE

form release agents



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quarts diluent; one gallon UTILITY RELEASE to seven gallons diluent; etc.

- ◆ To simplify dilution of UTILITY RELEASE with water, use NOX-CRETE'S MIX STATION which provides accurate, dependable and economical dilution and mixing performance. Comes equipped with mixing plugs to accommodate varying product temperature conditions. See chart below.
- ◆ UTILITY RELEASE is most easily applied using NOX-CRETE'S low pressure, hand pump THE PERFECT FORM & CONCRETE SPRAYER or THE IDEAL FORM & CONCRETE SPRAYER. Best results are obtained when a uniform application of UTILITY RELEASE is applied to all form surfaces. Allow coated form surfaces to adequately dry prior to placing concrete.
- ◆ Application rate required is a function of form composition, surface texture and porosity. It should be verified with test application. Typical range is 400-2,000 sf/gal. (10-50 sm/l).
- ◆ Do not over apply. Excess material, runs and puddles can adversely affect performance and should be picked up promptly with rags.
- ◆ Ambient form surface temperature must be in excess of 32° F (0° C) to prevent product from freezing if diluted with water.
- ◆ Prevent material overspray from contacting reinforcing steel and/or tensioning cables.
- ◆ Application equipment and overspray can be cleaned with soap and water.
- ◆ For use as a maintenance coating, dilute one part UTILITY RELEASE to three parts water or other diluent.

### TECHNICAL DATA

Bulk Density..... 7.7 lbs./gal. (0.92 kg/l)  
 Flash Point ..... >200° F (>93° C)  
 Color ..... 1.5  
 Odor..... Pleasant  
 VOC ..... <150 g/l  
 VP ..... <10.0 mmHg

### PACKAGING

Product is packaged in 1 gal. (3.8 l) jugs, 5 gal. (19 l) pails and 55 gal. (208 l) drums.

### SHELF LIFE

Shelf life is one year. Use before the "USE BY" date stated on product packaging.

### HANDLING/STORAGE

Store in a dry location within a temperature range between 40° F (4° C) and 100° F (38° C).

### AVAILABILITY & TECHNICAL SERVICES

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## Mix Station Plug Chart

TO ENSURE PROPER DILUTION RATIO, SELECT THE PROPER MIXING PLUG BASED ON THE ACTUAL TEMPERATURE OF THE PRODUCT. PRODUCT TEMPERATURE AND AMBIENT TEMPERATURE ARE NOT NECESSARILY THE SAME.

#### Release Agent Use

7:1 Recommended Dilution Ratio

Plug #	Product Temperature
2	40° F (4.4° C) - 52° F (11° C)
1	52° F (11° C) - 85° F (29.4° C)

#### Maintenance Coating Use

2:1 Recommended Dilution Ratio

Plug #	Product Temperature
Remove Plug	40° F (4.4° C) - 85° F (29.4° C)