

SURFACE PREPARATION

COATING PRODUCT

CUTEK® True Penetrating Wood Oil.

APPLICATION EQUIPMENT

Roll Coater / Flood Coater with back-brushing capabilities.

STANDARD SYSTEM APPLICATION

CUTEK® oil is a 2-coat process.

PURPOSE

Proper preparation of exposed wood surfaces ensures optimal penetration of CUTEK® penetrating oils/pigments enabling maximum durability, colour performance, and long-term wood protection.

REQUIRED EQUIPMENT

- Wide belt sander/ Industrial sanding system/ Nylon abrasive brush system (recommended for profiled surfaces)
- Sandpaper or Nylon Brush equivalent of 80-120 grit - depending on the wood species/density etc..
- Compressed air or vacuum system
- Moisture meter
- PPE as required by facility safety standards.

SURFACE PREPARATION REQUIREMENTS

Wood surfaces must remain open and absorbent to allow proper oil penetration.

Wood must be:

- Clean
- Dry
- Free of sanding dust
- Free of grease or other surface contamination.

WOOD PREPARATION PROCEDURES

1 - Inspect Wood

Check surfaces for dirt, grease contamination, mill glaze, resin bleed, extractives, minerals, other.

**** Many wood species are subject to extractives coming to the surface due to drying procedures. These contaminants must be removed prior to coating with CUTEK® wood oils. ****

SURFACE PREPARATION

2 – Sand Surface (As Required)

While CUTEK® wood oils will penetrate the surface without sanding, the best practice is to sand regardless as this will help to ensure a more suitable surface preparation and decrease the overall penetration time.

Sand wood with proper grit in the direction of the grain.

3 – Remove Dust

Remove sanding dust using compressed air or vacuum systems.

4 – Check Moisture Content

Maximum recommended moisture content: **17%.**

**Clear oil may be used above 17% moisture content if required.*

Applications with CUTEK® Colortone must not be performed above 17% moisture content

QUALITY CONTROL CHECK

- Surface sanded to proper grit
- Surface clean and dust-free
- No contamination present
- Moisture content verified
- Surface open and absorbent.

**** To verify wood is properly prepped and ready to coat, brush out a sample of the product to be applied onto a piece of the wood to be coated. Once applied look for visual indications that the oil is absorbing into the wood.****

TECHNICAL SUPPORT

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CLEAR OIL APPLICATION

Using CUTEK® Extreme or CUTEK® Machine Coat clear oil with no pigments.

APPLICATION EQUIPMENT

- Roll coater system with back brushing capabilities
- Flood coater system with back brushing capabilities
- Hand brushes to redistribute uneven application of oil/pigment as needed during drying / curing process.

TARGET SPREAD RATE

- Softwoods: 250–500 sq ft / gallon
- Hardwoods: 550–800 sq ft / gallon.

FILM THICKNESS CONTROL

****CUTEK® oils are very low viscosity / extremely thin and therefore must be applied in multiple thin coats making actual Mil measurements irrelevant****

COATING MACHINE READINESS

Ensure the coating machine has been properly cleaned and prepped for use with CUTEK® oils.

APPLICATION PROCEDURE

1 – Prepare Oil

Ensure oil is thoroughly mixed and uniform. CUTEK® oils contain components that require agitation and thorough mixing in order to achieve a proper blend prior to and during the application process.

**** NOTE if pulling from bulk containers the agitation process must be performed prior to removal in order to ensure batch consistency****

2 – Machine setup and priming

Once oil is properly agitated and mixed, prime pump of machine as necessary based on equipment requirements.

3 – Test run with cull lumber

Prior to running actual wood to be coated it is recommended to run some cull lumber through the machine to calibrate the proper flow of oil being applied and prime rollers and brushes. Ensure the back-brushes are properly adjusted for removing excess amounts of oil in order to avoid applying too much oil/pigment which will retard the dry time.

CLEAR OIL APPLICATION

4 – Apply First Coat

Pass material through the coating machine at proper speed for application and either wet stack or rack materials.

CUTEK® clear oils allow wet stacking directly into bunks without racking, blocking or using stickers between rows. While racking is not necessary it will speed the drying process due to better thermal air circulation.

5 – Back Brush

Most roll coat and flood coat systems include integrated back-brush mechanisms which will remove excess oil while passing through the machine. However, once racked it is important to inspect the wood for pooling and dripping of excess oil and back brush by hand as needed with a dry brush.

****Due to the nature of CUTEK® oils there is a large window of workability for this process. This can be done within a 30 minute to a 24-hour time frame after initial application****

6 – Absorption Period

****NOTE***CUTEK® oils dry by fully diffusing into the wood. The first coat must be thoroughly dry before applying the second coat. The best way to know if the wood is ready to apply a second coat is to press a tissue on to the wood with moderate hand pressure and if there is no transfer of oil it is ready for the next coat.*

There are many variables depending on wood species, temperature and moisture content of the wood that make it difficult to establish a specific timeline for drying.

**** Hardwood species can take up to 4-5 times longer to absorb oil than softwood species. ****

7 – Apply Second Coat

Apply second coat using same process as first coat while maintaining the same procedures in prior coat application.

8 – Drying / Packing

Prior to packaging for shipment ensure surface is dry and non-greasy.

9 – Attach completed Next Steps brochure

Attach completed *CUTEK® Pre-Coaters Next Steps* Brochure to each bundle/unit for on-site specifications of completed work and in field scope of work as needed.

CLEAR OIL APPLICATION

QUALITY CONTROL CHECK

- Even oil distribution (back brush with dry brush as needed)
- No pooling or dripping (back brush with dry brush as needed)
- Coverage within target spread rate.

PRODUCTION TIP

CUTEK® Pre-Finisher Takeoff Calculators are available to estimate oil usage based on dimensional lumber profiles and production volumes.

FILM THICKNESS CONTROL

****CUTEK® oils are very low viscosity / extremely thin and therefore must be applied in multiple thin coats making actual Mil measurements irrelevant****

TECHNICAL SUPPORT

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CUTEK® COLORTONE APPLICATION

PURPOSE

CUTEK® Colortones provide UV protection that integrates seamlessly with CUTEK® Extreme clear oil while enhancing the natural character of wood.

APPLICATION EQUIPMENT

- Roll coater system with back brushing capabilities
- Flood coater system with back brushing capabilities
- Hand brushes to redistribute uneven application of oil/pigment as needed during drying/curing process.

TARGET SPREAD RATES

- Softwoods: 250–500 sq ft / gallon
- Hardwoods: 550–800 sq ft / gallon.

FILM THICKNESS CONTROL

CUTEK® oils are very low viscosity / extremely thin and therefore must be applied in multiple thin coats making actual Mil measurements irrelevant.

CUTEK® COLORTONE ADDITIVE PREPARATION AND MIXING

CUTEK® Colortones are UV Inhibitor pigment additives designed to act as a sacrificial layer. They absorb harmful UV and slowly erode from the surface, rather than cracking and peeling away.

CUTEK® Colortone can be added at various strengths depending on UV exposure or colour appearance desired.

Please refer to accompanying chart to best determine which concentration best suits the surface's needs and outcomes.

CUTEK® COLORTONE MIXING RATIO - TUBES

- 1–3 CUTEK® Colortone tubes per 1-gallon can of oil
- 5–15 CUTEK® Colortone tubes per 5-gallon pail
- Each CUTEK® Colortone tube contains 95 mL (3.2 US FL OZ).

CUTEK® COLORTONE APPLICATION

CUTEK® COLORTONE MIXING RATIO – CANS

- CUTEK® Colortone 450 ML can (15.2 US fl oz). For use with 5-gallon pail only
- 1-3 cans per 5-gallon pail.

Once the proper amount of CUTEK® Colortone has been established follow these steps:

- Dispense CUTEK® Colortone from containers into mixing container.
- Ensure entire container of pigment has been emptied.

****When using tubes squeeze as much product out as possible and then place nozzle into clear oil and allow to suck oil into tube, shake and redisperse 1-2 times as needed****

****When using cans empty as much as possible and add some clear oil to can, replace lid, shake and empty back into container****

1 – Prepare CUTEK® Colortone / CUTEK® Oil blend

Ensure mixture is uniform by thoroughly mixing to a homogenous blend.

2 – Machine setup and priming

Once oil is properly agitated and mixed, prime pump of machine as necessary based on equipment requirements.

3 – Test run with cull lumber

Prior to running actual wood to be coated it is recommended to run some cull lumber through the machine to calibrate the proper flow of oil being applied and prime rollers and brushes. Ensure the back-brushes are properly adjusted for removing excess amounts of oil in order to avoid applying too much oil/pigment which will retard the dry time.

4 – Apply First coat with CUTEK® Colortone

****First coat provides highest level of absorption for pigment penetration****

When applying with CUTEK® Colortone, racking is necessary.

5 – Back Brush / Distribution

Most roll coat and flood coat systems include integrated back-brush mechanisms which will remove excess oil while passing through the machine. However, once racked it is important to inspect the wood for pooling and dripping of excess oil and back brush by hand as needed with a dry brush.

*****Due to the nature of CUTEK® oils there is a large window of workability for this process. This can be done within a 30 minute to a 24-hour time.*****

CUTEK® COLORTONE APPLICATION

6 – Absorption Period

NOTE CUTEK® oils dry by fully diffusing into the wood. The first coat must be thoroughly dry before applying the second coat. The best way to know if the wood is ready to apply a second coat is to press a tissue on to the wood with moderate hand pressure and if there is no transfer of oil or color it is ready for the next coat.

There are many variables depending on wood species, temperature and moisture content of the wood that make it difficult to establish a specific timeline for drying.

**** Hardwood species can take up to 4-5 times longer to absorb oil than softwood species. ****

7 – Apply Second Coat with CUTEK® Colortone on exposed face and sides.

Apply second coat using same process as first coat while maintaining the same procedures in prior coat application.

****Note*** when applying a second coat it is only necessary to coat the exposed face and sides thus calibrating the flow of product to accommodate this is best practice****

8 – Drying / Packing

Prior to packaging for shipment ensure surface is dry and non-greasy.

9 – Attach completed Next Steps brochure

Attach completed *CUTEK® Pre-Coaters Next Steps* Brochure to each bundle/unit for on-site specifications of completed work and in field scope of work as needed.

CUTEK® COLORTONE APPLICATION

QUALITY CONTROL CHECK

- Even color distribution (back brush with dry brush as needed)
- No pooling or dripping (back brush with dry brush as needed)
- Coverage within target spread rate.

TECHNICAL SUPPORT

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