

# ARMSTRONG-CLARK'S SEMI-SOLID WOOD STAIN

ESPRESSO – OXFORD BROWN – MOUNTAIN CEDAR – SEQUOIA – WOODLAND BROWN

## PRODUCT DATA SHEET

**DESCRIPTION:** A one coat, high solids pigmented finish made from heavy and light bodied oils with up to four times the pigments of our semi-transparent stains designed for application on unpainted wood. Heavy bodied oils provide water repellency. Extra pigments provide longer lasting sun protection. Light bodied oil penetrates into the wood. Armstrong-Clark's Semi-Solid Wood Stains add flexibility to the wood and absorb a greater degree of the sun's UV rays.

**UNIQUE QUALITIES:** Armstrong-Clark's formula is a combination of drying and non-drying oils that gives the user two layers of protection with one brush stroke. Armstrong's Wood Stains have a non-drying conditioning oil that separates from the drying side of the formula. This oil penetrates into the wood fiber where the wood's natural oil used to be. This process rejuvenates the wood. The drying oils stay at the surface, lock in the conditioning oil and create a barrier that is dry to the touch. Armstrong-Clark's Wood Stains have only a mild boiled linseed oil aroma and can be applied in the direct sunlight/heat of the day. Will not peel or crack. Can be exposed to light to "normal" rain 60 minutes after absorption into wood. All of Armstrong-Clark's colors are inter-mixable.

**USE:** For older unpainted wood surfaces such as: decks, siding, shakes and shingles, fences, and log homes where color retention, water repellency and wood conditioning are the desired goal. **NOT for new wood less than 1 year old. NOT for sitting surfaces nor furniture. NOT for exotic hardwoods.**

### BEFORE YOU START:

DO NOT prepare wood and apply stain when pollen is blanketing surfaces. Pollen is mold food.

New Wood Warning: Wood must be installed for at least 1 year old before applying Armstrong-Clark's semi-solid colors.

Rain Warning: Can be exposed to "light" to "normal" rain 60 minutes after stain absorbs into wood (not 60 minutes after application). If heavy rain is expected, wait until after the storm has passed. Clean after storm if necessary.

Hot weather: Enjoy application in the sunlight and heat of the day regardless of how hot it is outside.

Cool Weather Warning: Do not apply under 50 degrees. When daytime temperatures drop to 50 degrees, keep stain inside at room temperature and apply in the heat of the day. Freezing after absorption will not harm stain, but it will lengthen curing time.

Coverage: Coverage will vary depending on the age and species of the wood. 175 - 200 sqft./gallon horizontal; 200-300 sqft. /gallon vertical.

**SURFACE PREPARATION:** All wood must be cleaned – including new wood. Surface must be clean and free of dust, dirt, mold, mildew, pollen, and moisture. Determine the appropriate cleaning chemical and method for cleaning your surfaces. Bleach based cleaners typically are designed to treat surface mold or mildew while whitening the wood and oxalic acid based cleaner brighteners are used to treat tannin and rust stains while returning a more natural blonde color to the wood. There are premade cleaners available in stores that are single step or multistep (a bleach cleaner or a stripper followed by a brightener application). Additionally you can make your own cleaner by mixing 1qt bleach + 3qts water + 1 squirt liquid dish detergent. Do not let the bleach solution sit on the wood for more than 20 minutes. Long term exposure will breakdown wood lignin. Do not let the solution dry on the wood. Use a misting nozzle to keep wet in hot weather. Clean in smaller areas if it is hot outside or if an area is too large to coat, lightly scrub, and then rinse within 20 minutes. Typically letting solution sit for 3-5 minutes, lightly scrubbing, and rinsing within 10 minutes will suffice. For damp environments conducive to excessive mildew growth consider mixing with a mildew killer (Jomax). For specific preparation requirements or more in depth information please visit the support tab on [www.armclark.com](http://www.armclark.com).

New wood, aged wood, or wood previously sealed with Armstrong-Clark's: Use a wood cleaner and rinse thoroughly and/or light pressure wash.

Previously sealed with other brand stain: Remove previous stains that are not Armstrong-Clark's oil base wood stain. If stripping is required, be sure to apply brightener afterwards. If sanding you may need to start with a low grit (ex. 36 grit) to remove the coating and then finish with 60-80 grit.

## WARNINGS WHEN SANDING:

Never use finer than 80 grit. Anything finer than 80 grit (>80) will seal the pores of the wood and inhibit absorption.

**WARNING!** If you scrape, sand, or remove old paint from any surface, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD AVOID EXPOSURE.** Wear a NIOSH approved respirator to control lead exposure. Avoid contact with skin. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead [www.epa.gov/lead](http://www.epa.gov/lead).

**WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov/wood11](http://www.P65Warnings.ca.gov/wood11)

**PRE-APPLICATION:** Test stain choice for color and absorbency after preparation is complete. Wood must have moisture content 20% or lower as determined by a moisture meter for both testing and application. Cedar shakes and shingles should have a moisture content 15% or lower to help prevent tannin bleed. Wait two days after cleaning if a meter is not available. If the end cuts of the wood still look or feel damp at that time wait another day and reassess. When testing for color apply stain just like you will when staining the project in an inconspicuous spot. Test on the same surface being stained. For example – on a deck do not test for color on a support beam. Allow 48-72 hours for color.

**APPLICATION INSTRUCTIONS:** Let morning dew dry before application. Stir thoroughly. Be sure to scrape off all pigment that may have settled to the bottom of the can. Drill mixers do not always mix all pigment on the bottom of the can. Stir every 20 minutes during application. Apply stain in the direction of the wood's grain. **More is not better when applying stain.** Do not stop application in the middle of a board; complete applying stain to the end of a board that has been started. **DO NOT** apply with a rag. **DO NOT** wipe stain after application - brush out any puddles before clean-up. After 24 hours remove any wet spots with a rag. Do not thin. Avoid dripping, running and over spray as this might cause damage to garden plants and can stain painted surfaces. Over application can result in rub-off or blackening of wood after several months due to an accumulation of dust, dirt, and pollen in non-drying oil that was not absorbed.

Softwoods application: **DO NOT** apply semi-solid colors to wood less than 1 year old. Easy application by natural bristle brush, stain pad, roller, or airless spray equipment. No garden sprayers. Spraying can result in uneven application. Back brushing or back rolling is required with airless spray applications. No garden sprayers. Brushing and stain pads provide the most control and best results. **ONE COAT ONLY** for decks. To prevent rub-off extra care must be taken not to over apply. Rollers risk over application and are not recommended for walking surfaces. For other applications second coat can be applied wet on wet or wet on dry to wood that has been installed for more than 1 year for extra protection **ONLY IF** the first coat absorbs into wood within 60 minutes. Apply second coat “wet-on-wet” or “wet-on-dry”.

Fire retardant shingles: apply 2nd coat “wet-on-dry” at least 48 hours apart.

Hardwood application: **DO NOT** apply Semi-Solid colors to hardwoods.

Outdoor Furniture: **DO NOT** apply Semi-Solid colors to sitting surfaces and furniture.

Playground Equipment: **DO NOT** apply to playground equipment for risk of rub-off onto skin and clothes.

After Application: Let stain soak in overnight. If there are any wet spots after 24 hours, remove them with a dry towel. See rag disposal and SPONTANEOUS COMBUSTION WARNINGS on next page.

Drying Time: After absorption into wood, allow 8 hours for light traffic, 72 hours for heavy traffic and placement of patio furniture. Cool and/or damp weather will lengthen dry times.

**IMPORTANT NOTE:** Be sure to double check stain has dried when staining horizontal surfaces that are above eye level. For example - a trellis or an arbor. Excess oil that does not dry will float on the water when it rains and then drip and/or run onto surfaces below.

**CLEAN UP:** Clean all equipment with paint thinner. All empty cans must be air dried. Dispose according to state and local regulations. Clean tools with mineral spirits or paint thinner. See important Spontaneous Combustion warning on next page.

**AVOID SPONTANEOUS COMBUSTION!**

**Immediately after use clean tools and dispose of used rags and other waste in a sealed water filled container for one week to AVOID SPONTANEOUS COMBUSTION. If you do not have a container use an empty stain can. Saturate any large textiles like drop cloths or paper products used for drop sheets or spray guards with water. Wash clothes with stain on them - do not leave them lying around.**

**MONTHLY MAINTENANCE:** To keep stained surfaces looking their best, especially decks, once a month sweep, blow, or hose off to remove dust, dirt, grime that can create a breeding ground for mold and mildew. Do not scrub. If you live in a humid or damp environment consider applying a scrub free mildew stain remover (Wet & Forget) to control surface mildew once the growth appears.

**APPLICATION MAINTENANCE:** Reapply at 2 to 4+ year intervals for vertical surfaces and 1 to 3 year intervals for horizontal surfaces, depending upon weather exposure.

**GENERAL PROPERTIES**

VOC: Does not exceed 50 grams per liter

TYPE: Linseed oil based

THINNER: DO NOT THIN

FLASH POINT RANGE: >200°F closed cup

SOLIDS: 95% active ingredients

CUSTOM COLORS: Armstrong-Clark's wood stains are NOT TINTABLE. However, all of Armstrong-Clark's colors can be intermixed to create custom colors.

MOISTURE CONTENT: Must be 20% or lower as determined by a moisture meter. Cedar shakes and shingles should have a moisture content 15% or lower to help prevent tannin bleed.

APPLICATION TEMPERATURE RANGE: 50° F to 110+° F

DRYTIME: After absorption into wood, allow 8 hours for light traffic, 72 hours for heavy traffic and furniture. Cool and/or damp weather will lengthen dry times.

**PROP65 WARNING**

Armstrong-Clark Company routinely researches the prop65 warnings for the State of California. Although we are not currently aware of any ingredients in our product that require a prop65 warning, we would like you to be aware that at some point in time the State of California may decide that our product includes an ingredient that has been known to cause cancer or reproductive harm.