Technical Data:

(Not to be considered specifications.)

Packaging:
One gallon, five gallon pails and 1/4 pint samples available.

Coverage rate:
1st coat: 150-250 sq. ft./gal • 2nd coat: 350-450 sq. ft./gal
(As with all stains, coverage will vary depending upon roughness of the wood.)

Recommended film thickness:
3 mils (use a gauge if in doubt)

Application Range:
Surface temperature should be 45˚F minimum and rising, 90˚F maximum and falling. The coating should be applied and allowed to dry within this temperature range. Application and curing below the minimum risks slow drying which could lead to rain or snow damage. Application above the recommended maximum risks drying too fast, with poor penetration into the wood.

Best performance:
Between 50˚F and 90˚F
(Note: When cold and/or humid nights are expected, apply coatings no later than mid-afternoon to allow adequate drying time before exposure to severe conditions.)

VOCs:
Less than 550 grams/liter

Shelf Life:
3 years from date of manufacture (minimum, unopened pail stored at room temperature)

Compatibility:
Transformation is recommended for use with all other Sashco products. It also works well with most other caulking/chinking, and clear exterior coatings. Please contact Sashco for details on specific compatibility questions.

Dry Time:
Transformation dries to the touch in 30 minutes or less in ideal weather. However, we recommend waiting at least 12 hours before applying a second coat. Slight tackiness may persist for 3-5 days.

Viscosity:
Brookfield LVF, 30-40 cps; spindle #2, 60 rpm

Density:
7.0 - 7.5 lb./gal.

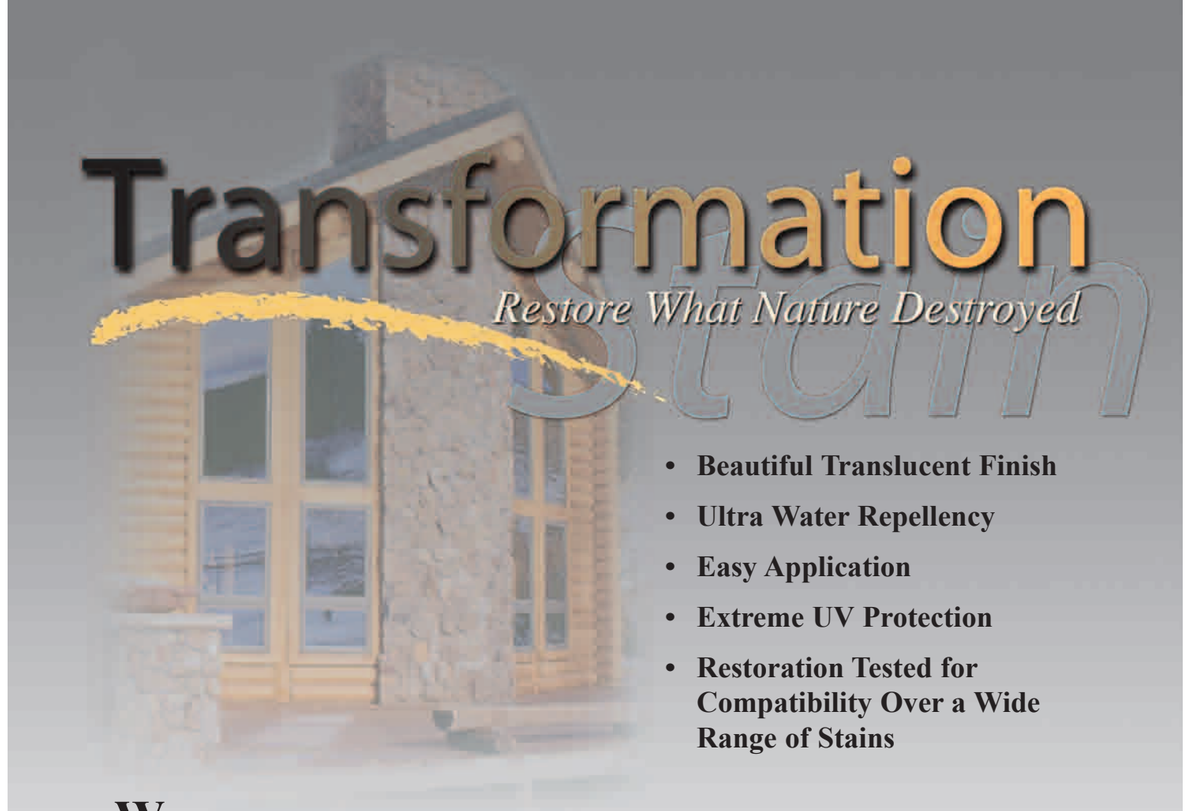
Solids:
38-40%, depending on color

Odor:
Mild, mineral spirits

Schroeder Log Home Supply, Inc.
"Your Log Home Hardware Store"
***Ask Us!* 1-800-359-6614** www.loghelp.com

Sashco®
Preserve your dream™

05/04



- **Beautiful Translucent Finish**
- **Ultra Water Repellency**
- **Easy Application**
- **Extreme UV Protection**
- **Restoration Tested for Compatibility Over a Wide Range of Stains**

When it's time to restore an eroded, failing stain, or if you need to maintain a coating that has lost its luster, remember one word, transformation. Better yet, remember two words: Transformation™ Stain. Transformation Stain will transform the appearance of your exterior logs and exterior vertical woodwork from dull and lifeless to rich and brilliant—especially for older logs needing restoration. The stain that's easy to remember because its name describes what you want and what it provides, Transformation!

How can I be certain that I get the look that I want for my log home?

The truth is that the key to beautifully finished wood, and how long an exterior coating will last, is highly dependent on how well the wood is prepped. The finished color of the coating, the life of the stain and the overall appearance of your home will be heavily influenced by this critical factor—the method used to prep the wood.

Actually, log refinishing is a lot like teeth whitening, different methods yield different results. The easiest, most convenient and least expensive method is to simply brush your teeth with a whitening toothpaste. This method is pretty hassle-free, but it is also the least effective, the results are questionable and if there is minimal improvement, it doesn't last very long. The next method (custom made bleaching trays) is more expensive, involves a couple of trips to the dentist for fitting and making the trays, involves multiple treatments and is quite a bit more expensive than over-the-counter products, but there is significant improvement and the results last a lot longer. The method that yields the best results is administered by a professional, and is expensive, but the results are stunning and can last for years. So you see: different methods, different results.

Just as different results are obtained by the method and the materials used in teeth whitening, the same is true with log refinishing. There are pros and cons to each method, but the choice of method will determine the finished appearance and the longevity of the coating.

Pressure/Power Washing

In our teeth whitening example, power washing would be comparable to the whitening toothpaste method. Power washing is the most common method that homeowners use to prep their log or wood-sided homes, but it is the least effective. We don't recommend pressure washing alone as the method of log preparation, because it doesn't provide the best surface for penetration of stains, and the life of

the coating may be compromised. There is also an appearance issue to this type of wood prep. Often, pressure washing doesn't remove all the old stain from a home, so there will be areas that are down to raw wood and other areas where some of the old stain still remains. Applying a new coat of stain over this type of surface will result in an uneven and, usually, undesirable appearance.

Felted wood after power washing.

This method can be successful if the pressure washing is done aggressively enough to "felt" the wood. If the wood hasn't felted, then the power washing wasn't aggressive enough to be certain that unsound wood was fully removed, and you will be disappointed that the stain didn't last as long as you expected. If you opt for this method of prepping wood, we recommend that you, at least, go one step further and run a 3M non-woven pad over the log surfaces to remove the felting resulting from pressure washing.

Prep Method used was Power Washing followed by a 3M™ non-woven pad.

If you must pressure wash, then our best advice is to power wash aggressively enough to felt the wood, allow the wood to dry and then run an Osborn™ Brush that is 80 grit, 4-6 inches in diameter, over the logs. An Osborn Brush evens out the log surfaces and, yet, adds some texture to the logs allowing for better anchoring and penetration of stains.

Prep method used was power washing followed by an Osborn Brush. The bare wood shown in the middle DOESN'T return to its natural color after pressure washing.

Corn Cob Media Blasting

Referring back to our teeth whitening example, corn cob media blasting for wood is comparable to the bleaching trays for teeth. Corn cob media blasting is a dry method of wood surface prep that is swiftly gaining popularity in the log industry and is the method that we highly recommend. Dry removal methods are best because: you aren't forcing water into the wood, or, if the wall is not sealed properly, into your home; you won't have a delay in your finishing process while waiting for the wood to dry out; and, unlike pressure washing, there is a greater likelihood that it will be more effective. Corn cob media under pressure will be more effective in removing surface contaminants, unsound wood fibers and failing stains, while also texturing the log surfaces for better anchoring and penetration of stains.

The more textured the surface, the more stain will be absorbed into the wood. This will extend the life of the coating, but it will also cause the stain appearance to be the darkest and most vivid in color, compared to other preparation methods.

Corn cob media blasting. The bare wood shown in the middle DOES return to its natural color after cob-blasting.

Sometimes, cob-blasting can create more texture than is desired. If so, and if you do not mind sacrificing some stain longevity in order to achieve a less dramatic surface appearance, then lightly run an Osborn Brush over the cob-blasted logs to reduce the texture some. The surface texture will be lessened and the wood will not absorb and "take" as much stain, giving a lighter color, but with reduced longevity.

The following set of pictures depicts the finished appearance of wood that has been prepped using the different methods just discussed. As you can see, there is a visible difference in the stain color and intensity depending on the prep method. The spindles are stacked in the order of which method or wood prep will provide the longest life for an exterior coating, although this is extremely important, you will want to consider which prep method provides the finished appearance that you prefer. In summary, choose your prepping method based on the appearance that you want to achieve, balanced with the length of performance that you want from your stain.

One last important item to note, lighter colored stains have less pigmentation, and therefore, don't hold up as well to UV degradation. For this reason, if you select our Natural color, you must apply 3 coats of this color to build enough pigmentation on the logs to extend the life of the coating. This is probably as good a place as any to emphasize that anytime you select a light colored stain, be prepared to do more frequent maintenance coats.

This was quite a long explanation, but we want you to have a successful experience with Transformation Stain, and we want the finished appearance of your home to be exactly what you imagined.

Color Testing Procedure

To be assured you achieve the color you want on your home, follow these important steps:

- Read the entire Transformation Stain Data:Tec before testing for color.
- Test Transformation on an inconspicuous section of your home that has been surface prepped with the method that you've selected after considering the longevity that you desire and the intensity of color.
- Use the same application method you plan to use on your home.
- Apply the first coat as heavily as possible, and let it dry 4-24 hours.
- Apply the second coat heavily, let it dry, and then evaluate the color.
- Don't allow the contractor to stain until you have thoroughly discussed and demonstrated the look you want. Show him the test section that you've approved for color.
- Don't apply Transformation to the entire home before you verify that you're achieving the look you want.

Due to the extreme transparency of Transformation Stain, the color of the stain you select will be influenced by the color of the underlying wood. Therefore, it is very important to test the stain on your home to be certain that you get the color you want.

Maintenance

Maintenance is very important for prolonged high performance, so plan to inspect your home each spring and fall for any problems with stain, caulking, chinking, rot, etc. Routine re-application of one or more coats of Transformation, or Cascade water-borne clear coat may be applied for routine maintenance.

Within the first 12-18 months after Transformation was first applied, it is important to inspect the building to see if any areas did not receive an initially adequate amount of stain, which can sometimes happen in localized areas when the stain is first applied. If you locate such areas, simply clean the surfaces with damp rags or bristle brushes to remove dirt, pollen, etc., and then apply more Transformation.

Clean-up

Brushes and equipment should be cleaned with mineral spirits. Follow local, state and federal guidelines for disposing of empty cans or any unused product. Keep containers tightly closed when not in use. Hands may be cleaned with such cleaners as Go-Jo or orange-based hand cleaners, then washed with soap and water.

Coverage

Varies with wood porosity. First coat will cover 150-300 sq. ft. per gallon. The second coat, 250-450 sq. ft. per gallon.

Storage

Do not store in direct sunlight or hot conditions. The shelf life is a minimum of 3 years from the date of manufacture when stored at room temperature in unopened containers.

CAUTION!

Combustible. Contains Petroleum Distillates. Keep away from sparks, heat, flames and sources of ignition. Do not smoke while using product. May be harmful if inhaled or swallowed. May be irritating to skin and eyes. For exterior use only – where good ventilation can usually be achieved. Not for interior use. Avoid breathing vapors. Wear a vapor respirator when spraying that conforms to the requirements of NIOSH/MSHA TC 23C, or equivalent.

DANGER!

If improperly stored, such items as rags, drop cloths, steel wool or other objects laden with Transformation Stain or solvents may spontaneously catch on fire. It is best to place such items in a water-filled metal container, and in no case should such items be stored in or near buildings, vehicles or other valuable structures which could catch fire if spontaneous combustion should occur.

FIRST AID

IF SWALLOWED: DO NOT INDUCE VOMITING. CALL DOCTOR IMMEDIATELY. EYES: Flush eyes immediately with water for 15 minutes. Call doctor.

IF INHALED: Move to fresh air. If symptoms persist, call doctor. SKIN: Wash skin thoroughly with soap and water. Remove contaminated clothing – and wash clothing right away. Call doctor if skin irritation persists. Refer to the MSDS for this product as needed.

NOTICE

Reports have indicated that repeated and prolonged occupational overexposure to solvents can lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the vapors from this product may be harmful or fatal. WARNING: This product contains a chemical reported by the state of California to cause cancer.

WARNING!

If you scrape, sand, or remove old paint, 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 ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Application Steps

1 Prep the log surfaces using the method that will give you the finished appearance that you selected. Refer to the Data Tec TRS 002 for detailed information.

Corn Cob Blasting

(Recommended method)

Power Washing

2 Hand finish the log surfaces to remove "felting" from power washing, once the logs are dry, or to lessen the texture caused from corn cob blasting.

Osborn® Brush

(Recommended method)

CAUTION: Use a variable-speed grinder or sander that does NOT exceed the safety limits for Osborn Brushes, i.e., no higher than 5,000 rpm (best between 2,000 and 4,000 rpm).

3M® Non-woven Pad

3 Remove all saw dust or corn cob media with a brush, air compressor or shop vac.

4 If you have stripped the logs of all previous coatings and you wish to apply a borate wood preservative and insecticide, such as PeneTreat, now is the time.

5 Allow time for the PeneTreat solution to dry, (usually 1-3 days depending on the weather—check the moisture content with a moisture meter) and then spray on—to the point of running—one heavy coat of Transformation™ Stain. If only a brush is used, be sure to drench-apply the stain—don't skimp. Note the use of a proper respirator and eye protection.

Spray on stain.

Immediately, vigorously back brush.

6 Wait 24 hours and apply the second coat of Transformation™ Stain, spraying and back brushing as with the first coat.

(Note: Transformation will have a slight tackiness for about a week.)

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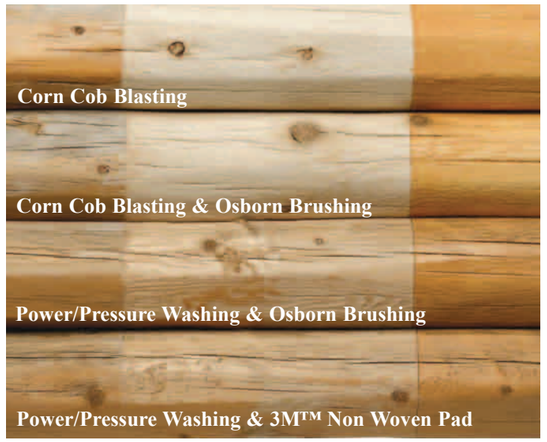
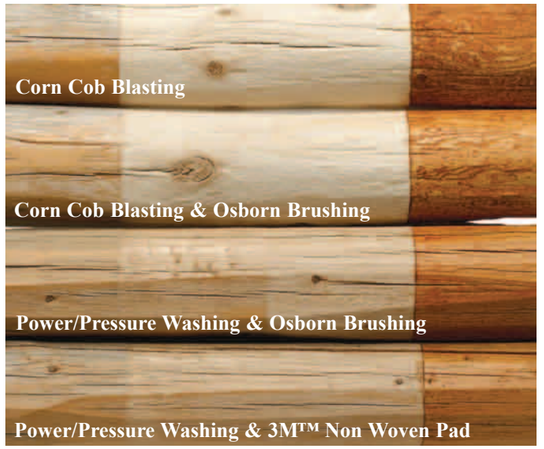
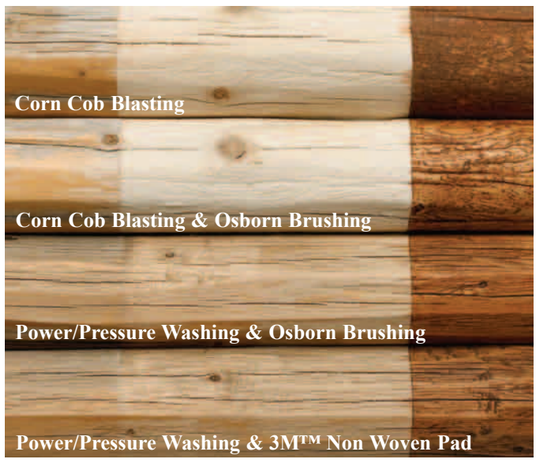
Light Tones



Medium Tones



Dark Tones



Fundamental Application Guidelines

Proper substrate preparation and application are imperative for product longevity. Read this Data Tec sheet, TRS 002, before applying any product.

1. Make certain that all compatibility issues have been addressed. If you are changing from one stain product to another, call us and ask if Transformation™ Stain is compatible with the previously used stain.*

**Most stains are perfectly compatible with Transformation. The non-drying oil based stains (e.g., X-100™, Wolman's F&P™) or stains heavily loaded with wax (Thompson's Waterseal™) can be problematic, especially if they have been fairly recently applied. Also suspect are wood coatings that are presented as "waterproofing" top coats. Before staining an entire structure with any of these problematic products, call us for guidance. Sashco cannot guarantee the performance of Transformation over these types of coatings.*

2. Check the weather forecast. Plan to stain when the forecast is predicting good weather that will extend 1-2 days after the stain has been applied.
3. According to the Forest Products Research Laboratories, the moisture content of wood should not exceed 19%. Make certain this is a fact by using a moisture meter.
4. Log surfaces must be sound (meaning that all loose wood fibers and loose failing stains must be removed prior to staining) and clean from dirt, pollen and other surface contaminants. Therefore, surface prep should be done no more than 1-2 weeks before stain is applied. Cob blasting and other dry prep methods are best, but power washing can work if done properly and the wood is allowed to dry.
5. Apply to log *surfaces* with a temperature range of 50°F (and rising) to 90°F (and falling). Plan your work so that log *surface* temperatures fall within this range: e.g., the southern exposure in the early morning or late afternoon, the western exposure in the mid to late morning, the east side in the mid to late afternoon, and the north side almost any time of the day. Do not apply to surfaces in direct intense sunlight, since the surfaces can be too hot.
6. If your home is in an area of high humidity, add additional mildewcides to the stain. Call us for recommendations.
7. Mix together pails that may have different lot numbers; this will help ensure uniformity of color. Stir thoroughly to mix all pigments evenly, and stir the stain periodically throughout application. The preferred method is with a drill-driven mixer (squirrel cage type is best).