TWP®-200 SERIES SHAKE AND SHINGLE SEALANT

TWP® COLOR SELECTION:

200 CLEAR*, 201 CEDARTONE, 202 REDWOOD, 203 DARK OAK, 205 CALIFORNIA CEDAR, 206 RUSSET BROWN, 207 BUTTERNUT BROWN, 210 SLATE GRAY

*NOTE: 200 Clear is available as a sealer or blending base only to be followed by a tinted topcoat.

PRODUCT DESCRIPTION: TWP® is a high solids, heavy duty, penetrative coating specifically designed to extend the service life of shakes and shingle. The primary function is to enhance structural integrity and appearance of aged roofing. The product will minimize grain cupping, surface erosion, water absorbency and film surface attack from mildew and algae. Although the system is highly penetrative, the residual surface film is highly resistant to destructive organisms. The penetrative portion of the product absorbs into aged and porous wood, adding bulk to aged and brittle wood fiber. This restores lubricity and flexibility to brittle shingles. At 94%+ solids, this product complies with all know state and federal VOC (Volatile Organic Compound) regulations.

PRODUCT USES: Horizontal and Vertical, new and old wood shakes, wood shingles, decorative railroad ties, rough sawn structural wood – Though mostly used on shakes and shingles, TWP® can be used for other wood applications such as decks, fencing and log homes.

SURFACE PREPARATION: This product must be applied to porous unsealed surfaces.
NEW WOOD: All new wood must be thoroughly wetted by rain or tap water at least twice to open wood grain and remove excess surface tannins. Allow a minimum of 48 hours of good drying conditions before applying TWP®.
OLD WOOD: Prior to cleaning replace any cracked or severely cupped shingles. If surface is above 15% defective, it is advisable to re-roof. Pay special attention to ridge caps. For the best appearance use good aged shingles from the back of the house to replace unusable shingles in the front. This procedure will give the front of the home a more uniform appearance and keep the roof from having a blotchy appearance from the insertion of random new shingles. Replace shakes and shingles before cleaning. When fastening new shingles, be sure to use non-ferrous nails or staples. Dipped galvanized fasteners are preferred. Sound shakes with minor cracking which have not begun to cup may be underpinned with galvanized sheet metal or polypropylene slip sheets cut to the overlaying shingle size. They are easily installed using an exterior grade construction adhesive. Use 15-25 mil polypropylene sheet stock or standard thin gauge galvanize. Plastic is the easiest to install. Flexible vinyl may also be used. Run an adhesive bead on horizontal back edge and sides. Do not apply to bottom edge. Lift the cracked overlaying shingle slightly and slide the slip-sheet under the shingle with adhesive side down. Press the top shingle down to secure the slip-sheet to the shingle scraper to insure adhesive contact with the surface. Allow 24 hours before washing the roof.

ROOF CLEANING: The surface must be cleaned to remove dirt, alga, moss, mildew and loose wood fiber. Depending on climate and age of roof, one or all of the conditions may exist. The most common method of cleaning is power washing without chemical assistance. This is acceptable in most instances where the roofing is in fair condition without excessive embrittlement. In situations where the surface contains excessive amounts of algae, black mildew and loose wood fiber, it is advisable to soak the surface with a bleach solution prior to cleaning. This will allow the use of lower pressure power washing, thereby reducing the risk of creating more damage from high pressure water blasting.
POWER WASHING – Standard power washers generating 1500-2500 psi are adequate. The size is somewhat dependent on the experience of the user. More powerful equipment may be used for faster cleaning, providing the user has the experience not to damage the surface. Proper technique requires roughly a 45% blast angle from the plane of the surface, disregarding the roof pitch. Operate at maximum pressure and adjust tip distance to the surface short of fraying or splintering the wood. Always work down slope. Apply vertical blast to remove debris from butt ends carefully. Trim old jumbo shakes with badly frayed ends with a high speed rotary trim saw.

BLEACH SOLUTIONS – There are two options. One is standard household bleach (sodium hypochlorite 5-6%) or commercial strength 11-13%. Normal conditions require the bleach to be applied at 2-3% active. Cut household bleach 1:1 and commercial strength 1:5 with water. Application equipment varies greatly. The delivery pumping system should be low pressure in order to prevent misting. Components must be chemical resistant plastic or stainless steel. The objective is to deliver the solution to the surface with minimum overspray o pressure. Always start applying chemical at the bottom of the roofline. This prevents rundown or dirt and chemical into dry porous surface. Pump-up garden sprayers such as stainless steel or plastic are adequate where production time is not essential. Power washers with after pump chemical siphon feed work well for fast production. Make sure the gun, pole and tip assembly is steel or stainless steel. Keep the equipment minimum of 50 feet from the point of application and keep covered with plastic. The working life of the solution is 5-10 minutes. Follow up with power wash rinse to remove loose residue. The second bleach alternative is 70% chlorine granular pool treatment (calcium hypochlorite). There are several that are sold by chemical distributors and pool supply stores. Although it is less cost efficient, it has several advantages over sodium hypochlorite. It is more efficient on algae and moss. It has a longer working life. It will remain active for many hors. Typical solution is 4 to 8 dry ounces per gallon of water. Allow the powder 30-60 minutes to dissolve before application. Since 5% of the powder is insoluble in water, the application pump intake must have a screen and must be kept one inch off the bottom of the solution container. When using a pump up sprayer, decant the solution into a clean plastic container leaving the insoluble residue behind. The residue is non-toxic and may be disposed as conventional waste. **Caution – Do not allow bleach to come in contact** with aluminum windows, doors or mechanical equipment. Keep plant foliage in the immediate application area wet. Take all measures possible to prevent misting. Wear rubber gloves and splash goggles, and any equipment deemed necessary for personal protection. Rinse all cleaning application equipment thoroughly after use with water. Rinse all product application equipment thoroughly after use with mineral spirits followed by water. Cover plants and foliage with plastic during cleaning and product application. In hot weather, remove plant cover as soon as possible and water. Do not contaminate ground water or open water to prevent damage to aquatic life. TWP® is toxic to fish. Use personal and property protection procedures prescribed in the Material Safety Data Sheet. Clean up over spray immediately with mineral spirits and then soap and water. Rag Disposal- Lay used rags in a single layer outdoors and allow to air dry for 24 hours. To minimize the chance of spontaneous combustion typical of natural drying oils, place rags in a water filled metal container for disposal. The user accepts responsibility for disposal of waste and empty containers in accordance with existing governmental statutes.

MATERIAL PREPARATIONS: MIX THOROUGHLY BEFORE USING AND OCCASIONALLY DURING USE. **DO NOT THIN TWP®.** Do not apply below 50° F, to damp surface, if rain is anticipated within 48 hours or heavy dew is present.

APPLICATION: After product selection and a minimum 48 hours of drying after cleaning, product may be applied. There are many pumping mechanisms to apply product. Avoid excessive overspray be adjusting pressure to minimize misting. Most commonly used is airless spray equipment in the ½ to 1 ½ gallon minimum pump capacity. The gun assembly should include a three foot extension pole with a .032 to .040 swivel wide angle spray tip. This will allow the application to stay away from the product and keep the spray close to the surface. It is preferred to spray a 3 foot section laterally across the roof and ending the bottom of the pattern as close to the shingle butt line as possible. This is done to avoid lapping. This is a one coat system. **Note:** This product is very dark upon application and can take as long as 8 weeks to lighten to the final color.

COVERAGE: TWP® should be applied at 100-250 sq.ft./gal. Rate will vary depending on wood porosity. Remove excess or puddled material that has not penetrated after 15 minutes on horizontal surfaces with a paint pad or dry roller. Single coat application only. Allow to dry for a minimum of 48 hours. Though this system is designed for non-traffic surfaces, it can be thinned with 25% Mineral Spirits for traffic areas. Walking on TWP® before it is dry will cause tracking.

DRY TIME: TWP® is a semi-drying finish designed for penetration. Surfaces are generally dry to the touch overnight.

SHELF LIFE: Approximately 18 months if container is unopened and stored in a cool dry area where temperatures to not drop below **50° F**

PHYSICAL DATA: (Typical for all)

Solids by Weight: 94-96%	Weight per Gallon: 7.4-7.8
Pigment: 2.50-10.0%	Maximum Coating VOC: 55 grams/liter