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## **1.0 Tadelakt Finish**

### **1.1 Description**

The Earthus Tadelakt System is inspired by the traditional Moroccan Tadelakt materials and technique. Earthus defines traditional Tadelakt as the water-repellent seal created by the natural chemical reaction that occurs when olive oil soap is rubbed in/burnished into lime plaster (Tadelakt means "to rub in").

### **1.2 Finish Summary: Earthus Tadelakt Finish: total thickness $\frac{3}{8}$ "**

1. Substrate preparation: varies between shower and non-shower applications
2. Two  $\frac{1}{8}$ " Earthus Base Plaster coats totaling  $\frac{1}{4}$ "
3. Four Earthus Tadelakt Plaster coats totaling  $\frac{1}{8}$ "
4. Three coats of Earthus Olive Oil Soap Sealer, burnished and absorbed into the Tadelakt
5. Two coats of Earthus Beeswax Protective Sealer to protect the natural water repellent seal

### **1.3 Earthus Tadelakt Finish Properties**

- Earthus plasters are made with high quality US-quarried lime, pumice, mineral pigments, and plant-based binder.
- 100% natural materials
- Excellent adherence and workability
- Zero VOCs or chemical additives
- Lime plaster absorbs CO<sub>2</sub> and transforms back into limestone as it cures
- Mold and mildew resistant
- Durable and breathable

### **1.4 Disclaimer**

The information provided in Earthus Artisan Plaster Sample Kit Guides is given in good faith, based on current knowledge and Earthus' experience with the plaster products when they are properly stored, handled and applied in normal situations. The Sample Kit Guide is useful for information and consulting but is not legally binding. In particular, it does not exempt the user from testing and verifying the suitability of the product for the desired application and purpose. Any modification to the instructions and recommendations by the user, they will assume all the corresponding risk and responsibility. Earthus Plaster reserves the right to modifications that improve the product or its application.

## **2.0 Sample Kit Contents**

The contents of the Earthus Tadelakt Plaster Sample Kit will make 1 quart of plaster and cover up to 5 square feet; coverage may vary depending on type and condition of substrate, thickness of application, and tools used. The entire contents of the Kit should be mixed to ensure color accuracy. Due to differences in coverage rates, there may be small amounts of some materials left over.

### **2.1 Primer Grit | ¼ cup**

Primer Grit is a fine pumice additive that is mixed into primer and functions to create a toothy substrate for increased bond and ease of application. ¼ cup of Primer Grit is added to 1 quart of primer

### **2.2 Base Plaster | 2.2 lbs (1000g) powdered**

Base Plaster is a coarse undercoat plaster formulated to function as the foundation for Earthus Tadelakt Plaster.

### **2.3 Tadelakt Plaster, powdered and pre-pigmented | 1.6 lbs (725 g)**

Tadelakt plaster is a finish coat plaster formulated with a pumice pozzolan and plant based binder.

### **2.4 Olive Oil Soap Sealer | 2 oz**

Olive Oil Soap Sealer is a concentrate that must be diluted before use. The application of Olive Oil Soap Sealer will have a chemical reaction when applied and burnished into the Tadelakt plaster resulting in a natural water-repellent seal.

### **2.5 Beeswax Protective Sealer | 4oz**

Beeswax Protective Sealer is a liquid beeswax emulsion that is a necessary final step to protect the natural Tadelakt water-repellent seal.

## **3.0 Preparation**

### **3.1 Gather Tools**

Most of the recommended tools for the Sample Kits are organized and listed on our website. Each tool is linked to an online purchase option.

[Recommended Tools](#)

### **Non-Shower Substrate Sample: Priming with Grit: Mixing and Application**

- [Small Mixing Paddle](#)
- [Mixing Tub : larger than 1 quart](#)
- [Roller or Brush](#)
- [Small Cordless Drill](#)

### **Shower Substrate Sample: Thinset Mixing and Application**

- [Small Cordless Drill](#)
- [Small Mixing Paddle](#)
- [Mixing Tub : larger than 1 quart](#)
- [1/8 inch V Notch Trowel](#)

### **Tadelakt Plastering: Mixing and Application**

- [Small Cordless Drill](#)
- [Small Mixing Paddle](#)
- [Mixing Tub : larger than 1 quart but no larger than 2.5 quarts](#)
- [Sponge Float](#)
- [Neoprene Float](#)
- [Hawk](#)
- [Trowel](#)

### **Tadelakt Soaping & Waxing: Mixing and Application**

- [Mixing Tub: one quart](#)
- [Roller or Brush](#)

## **3.2 Sample Making**

### **A. Substrate Options**

Tadelakt Finish samples can be made on sheetrock, Medium Density Fiberboard (MDF), tile backer board, or ceramic bisque tiles. For health, take note that standard MDF board is made with formaldehyde, a known carcinogen. Plywood and particleboard are not recommended because tannins can leach and discolor the plaster. The substrate needs to be dry and free from impurities that could hinder the bonding of Primer and Grit.

### **B. Sample Substrate Preparation Options**

### 1. **Primer Grit Only**

To practice the Tadelakt finish only, sample substrates can be prepared with primer with added Earthaus Grit.

2. **Primer & Thinset:** The standard Earthaus Wet-Use Tadelakt substrate for a shower requires a waterproof membrane and a 1/8 inch key coat of Thinset. Preparing the sample substrate with Thinset over primer for samples will closely resemble the standard substrate preparation.

3. **Waterproof Membrane & Thinset:** The standard Earthaus Wet-Use Tadelakt substrate for a shower requires a waterproof membrane and a 1/8 inch key coat of Thinset. Samples substrates can be prepared with a waterproof membrane and Thinset for practicing the standard substrate preparation.

### 3.3 **Review Earthaus Tadelakt Video Tutorial Series**

While Tutorials demonstrate Tadelakt Substrate Preparation and Application using full size products and the Tadelakt plaster is not pre-pigmented as it is in the Kit, the Mixing and Application demonstration is the same.

[Earthaus Tadelakt Video Tutorial Series](#)

### 3.4 **Safety Precautions**

As lime-based products, Earthaus Base and Tadelakt Plasters are highly alkaline during mixing and while wet. It's recommended to wear a dust mask and safety glasses and cover exposed skin during mixing. Wear neoprene gloves and protective clothing during application. If skin comes in contact with wet Base or Tadelakt plasters and causes irritation, rinse skin with white vinegar to neutralize the lime. If Base or Tadelakt plaster gets into your eyes, flush your eyes with an eyewash.

[Safety Data Sheets](#)

### 3.5 **Preparing the Sample Substrate**

#### **A. Suitable Primers**

Earthuas Plaster does not make a primer product. We recommend choosing a primer with zero to low VOCs. For a list of suitable primers:

[Primer Grit Product Guide](#)

### **B. Substrate Option 1: Primer with Grit**

1. Add full contents of the Kit's Primer Grit into 1 quart of primer.
2. Mix with a drill and paddle for 30 seconds until integrated.
3. Sample substrate should be dry and free from any impurities that could hinder the bonding of Primer and Grit.
4. Use a brush or roller to apply one coat of Primer evenly to the substrate.
5. Allow the primer to dry fully to ensure that the Grit is completely bonded to the surface.

### **C. Substrate Option 2: Primer and Thinset Key Coat**

1. Sample substrate should be dry and free from any impurities that could hinder the bonding of Primer and Grit.
2. Use a brush or roller to apply one coat of Primer evenly to the substrate.
3. Allow the primer to dry.
4. Mix Thinset according to the manufacturer's instructions.
5. Apply one coat of Thinset using a 1/8 inch V Notch Trowel.

### **D. Substrate Option 3: Waterproof Membrane & Thinset Key Coat**

1. Mix and apply waterproof membrane according to the manufacturer's instructions.
2. Mix Thinset according to the manufacturer's instructions.
3. Apply one coat of Thinset using a 1/8 inch V Notch Trowel.

## **4.0 Tadelakt Finish: Application Guide**

### **A. Tips & Considerations**

1. **Even coats:** Base Coats applied evenly will prevent high spots and ridges. Even coats minimize aesthetic and color variations in the Tadelakt finish
2. **Thickness of coats:** Applying coats to their specified thickness will minimize possible issues in the finish. Applying too thick of coats can increase the risk for cracking
3. **Burnishing:** The technique of burnishing, applying pressure with a trowel, is learned over time and with practice. Start by applying pressure at approximately a 45 degree angle. Burnishing Tadelakt is done when the plaster is still wet but firm enough that no material comes off on the trowel.
4. **Color Variation:** If burnishing is applied for too long and with too much pressure, it

can bruise the plaster finish and may darken the color. How long to burnish is learned over time and with practice. Burnishing in areas where coats were not applied evenly, over high spots or ridges, may bruise easier. Color variation and color mottling can increase with depth and length of burnishing.

## **B. Basecoats: Base Plaster**

Base Plaster is a two coat, “wet on dry” application which means each coat must dry completely between coats. The two coats should total  $\frac{1}{4}$  inch thick, the sufficient thickness for Tadelakt Application.

### **Mixing Base:**

1. Add 2 cups (450 ml) of water to a mixing tub larger than a quart.
2. Slowly pour the powdered Base plaster into the water while mixing with the cordless drill and small mixing paddle.
3. Mix for 3 minutes to remove all lumps. If needed, adding a small amount of water may be necessary to make a workable consistency.

### **Base Application: 1st Basecoat**

1. Using a trowel, apply an even coat of Base approximately  $\frac{1}{8}$  inch thick. If applying over a thinset notch trowel coat, this first coat of base should fill the notches and just cover the notch trowel grooves.
2. When the first base coat has dried halfway, use a sponge float to even out ridges and trowel lines. Allow the first base coat to dry completely.

### **Base Application: 2nd Basecoat**

1. Using a trowel, apply an even second coat of Base approximately  $\frac{1}{8}$  inch thick.
2. As the second coat dries, even it out with a sponge to remove ridges and trowel lines.
3. When the Base is about halfway dry, use a neoprene float to flatten and even the surface of the Base plaster.
4. Before the Base is completely dry, use a trowel to flatten and knock down the sandy texture left by the floating process.
5. Allow the second base coat to dry completely.

## **B. Finish Coats: Tadelakt Plaster**

Tadelakt Plaster is a four coat, “wet-on-wet” application; this means that the four coats are applied in succession and the plaster should not fully dry between coats. For all four-coats, the total thickness is  $\frac{1}{8}$  inch which means that the coats are applied very thin.

**Mixing:**

1. Add 1.5 cups (400 ml) of water to a mixing tub larger than a quart.
2. Slowly pour the powdered Tadelakt plaster into the water while mixing with the cordless drill and small mixing paddle.
3. Mix for 3 minutes to remove all lumps.

**Tadelakt Application: All Coats**

1. Apply a “tight coat” which means a coat just thicker than the largest grains of aggregate in the Tadelakt plaster.
2. When the first tight coat is firm but still wet, “double back” (apply another) tight coat.
3. When the previous coat is firm but not wet, continue to double back in the same manner with two more tight coats, totaling four coats.
4. After the fourth coat, as the plaster begins to firm, use a clean trowel to begin to smooth the surface.
5. Continue to smooth the plaster as it dries to get a perfectly smooth surface with no relief texture.

**C. Olive Oil Soap Sealing**

Olive Oil Soap Sealer comes concentrated and must be diluted to use. Soap is a three coat application and absorbs into the Tadelakt as it’s applied and burnished.

**Diluting and Mixing**

1. Add 1.5 cups of warm water to the provided Soap to achieve the correct dilution ratio (6 parts water/1 part Soap)

**Soap Application and Burnishing**

1. Allow the Tadelakt to dry about 70% before Olive Oil Soap application. The plaster should be firm and set, but still have most of its moisture in it.
2. Apply the Soap with a roller or brush in a random crosshatch pattern.
3. With plenty of liquid soap on the surface, use a clean trowel to burnish the Tadelakt. Burnishing is a technique using pressure and compression to compact and polish the surface that will result in a silky smooth finish
4. Wipe excess soap off of the trowel as you burnish.
5. Repeat the Soaping and burnishing steps two more times as the Tadelakt dries.

**D. Waxing**



Beeswax Protective Sealer is used as-is and does not need to be diluted. Wax is a two coat application and functions to protect the natural seal created by the Olive Oil Soap Sealer and burnishing technique.

**Beeswax Application:**

1. Allow the Olive Oil Soap-burnished Tadelakt to dry out 12 hours before applying Beeswax Protective Sealer.
2. Apply thin coats of Wax with a brush or a roller, using a lint free cloth to wipe off excess wax and to buff out any streaks that may occur during application.
3. Allow the first coat of wax to dry for 2 hours before applying the second coat in the same manner.

**5.0 Completion**

**5.1 Storage**

Once mixed, Base and Tadelakt Plaster will keep for 14 days covered at room temperature. To rework Base and Tadelakt after storage, it is essential to remix the plasters using a drill. Olive Oil Soap Sealer and Beeswax Protective Sealer will store indefinitely if sealed properly and kept from freezing.

**5.2 Clean Up & Disposal**

To clean primer and thinset tools and dispose of excess primer and thinset, follow directions from the manufacturer. To clean Plaster tools and dispose of excess Base and Tadelakt Plasters, allow the plaster to fully dry in the container. Once dried, the plaster will easily be removed from the container and can be disposed of in the trash. Soap and Wax can be disposed of in the trash as well.