

# No VOC'S



## 1. PRODUCT NAME

# PVA-20

## REWETTABLE WATERBASED LATEX

High quality rewettable bonding agent for plaster and some concrete applications. Usable on interior and some exterior situations.

## 2. MANUFACTURER

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## 3. PRODUCT DESCRIPTION

PVA-20 is a polyvinyl acetate homopolymer and polyvinyl alcohol emulsion specially formulated for use as a "paint-on" type bonding adhesive or as a fortifying admix for cement or gypsum plaster mixes. It is a ready-to-use liquid that forms a chemical weld between new concrete or plaster and clean structurally sound concrete or other similar type surfaces. PVA-20 is also an excellent additive for strengthening the bond of conventional concrete or gypsum plasters. It also reduces the brittleness and the lack of impact strength inherent in cementitious materials. When used as an admix it will increase the water repellency and chemical resistance of cement based materials.

PVA-20 is a non-flammable liquid that dries to a uniform clear film when used as a bonding agent. The film redisperses when exposed to new wet concrete or gypsum plaster creating a strong bond between the new and old materials. For

bonding new concrete to old over 2" (50 mm) thick, PVA-20 secures bond without requiring chipping, scoring, or acid etching of the old concrete. Full bonding strengths are achieved after the concrete has completely cured. For patching or resurfacing concrete under 2" (50 mm) thick, PVA-20 is substituted for part of the mixing water increasing the bond strength and durability.

## Composition and Materials

Polyvinyl acetate latex emulsion modified with water.

## 4. TECHNICAL DATA

### PHYSICAL DATA

Solids, % By Weight.....	42%
Weight Per Gallon.....	8.4 lbs.
Shelf Life.....	6 months
Freeze - Thaw Stability.....	5 cycles
Odor.....	Very low

## 5. INSTALLATION

Before using this product, please refer to the Material Safety Data Sheet for additional handling instructions. Proper handling precautions MUST be followed. The conditions of your use and application of our product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond our control. Therefore it is imperative that you test our product and information to determine to your own satisfaction whether it is suitable for your intended use and application. This application/specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoint.

### Surface Preparation

All spalling, scaling, crumbly material must be removed from surfaces and crevices, and the area rendered structurally sound. Dust, dirt, oil, wax, chalky or loose paint, mildew, rust and other foreign material must be removed for adequate bonding. New concrete must be allowed to cure according to industry standards. Painted surfaces must be sound, washable, and firmly adhered to substrate. Do not apply PVA-20 over water soluble calcimine paints or rusted surfaces. Wait 60 days before applying PVA-20 over a newly painted surface. Glossy painted surfaces should be dulled or roughened with abrasive. When the surface causes water to bead like it does on wax paper you will most likely have a problem with bonding. These areas need to be sandblasted, scarified, bushhammered, or acid etched to produce an acceptable open surface for bonding. If surface is questionable, apply a test patch with the product/system specified.

Never apply cement plaster or toppings where efflorescence is present. Efflor-

escence is a white soluble salt that breaks down the bond of any cement-based product. These areas need to be sandblasted or acid etched to produce an acceptable sound, and open substrate for bonding.

### Mixing and Application Instructions Used as a Bonding Agent Only

Stir PVA-20 well prior to use, make sure no settling has occurred. PVA-20 should be used straight from container with no dilution for maximum bond strength. If concrete substrate is very porous, presoaking with clean water will prevent rapid water absorption from PVA-20.

Apply uniformly like a coat of lacquer using spray, brush, or roller. Form a continuous thin film over the entire surface to be bonded and allow to penetrate. Check to be sure there is no peeling or curling before applying wet plaster or cement. Film can be tacky or dry at time of application. Fresh films of PVA-20 are water sensitive, as the product must re-emulsify upon application of the cement plaster. Maximum adhesion and performance can be obtained by using PVA-20 as an admix in the new concrete, as well as a bonding agent at the glue line.

### Caution

PVA-20 films lose much of their water sensitivity on aging and may not redisperse. If too much time passes between applying and placing a succeeding layer, the PVA-20 could act more like a bond breaker. Maximum permissible dry time is unpredictable and can vary from 1 to 4 weeks. Should the PVA-20 film lose its water sensitivity prior to application of cement plaster, a fresh coat of PVA-20 must be applied before plastering. If surface is questionable, apply a test patch with the product/system specified.

### Used as a Bonding Agent For Cement

#### Plaster Stucco

PVA-20 should be applied as described above. Prior to application of cement plaster inspect bonding agent application to assure a continuous film is over entire bonding surface. Re-apply over areas not satisfactorily covered. Protect film from dirt and debris until cement plaster finish is in place. For two-coat application of cement plaster stucco, apply scratch coat a minimum of 3/8" (9.6 mm), allow to dry 24 hours or more, then apply finish coat a minimum of 1/8" (3.2 mm). Where two coats of cement plaster are necessary, only the first coat is bonded by PVA-20. The first coat should be a minimum of 3/8" (9.6 mm) thick and permitted to dry 24 hours before second coat application. If 24 hour minimum drying is not followed, moisture in the finish coat will penetrate the scratch coat and flood the PVA-20 film (which has not

had time to cure) resulting in a bond failure.  
**Used as an Admixture to Cement Mixes**

Recommended levels of use for concrete admixture applications range from 5-10% polymer (100% solids by weight), based on the Portland Cement content of the mix. For every 94 pound (42.3 kg) bag of cement used in a mix, 1 gallon (3.8 litre) of PVA-20 is required to obtain the minimum 5% concentration, 2 gallons (7.6 litres) for maximum 10% concentration. For best results on small volume mixing, dilute PVA-20 with an equal volume of water before blending with the dry cement mixture. Place half the diluted PVA-20 in a prewetted mixing drum. With drum turning at minimum speed (16 to 18 rpm), aggregate and cement are next introduced, followed by the remainder of the diluted PVA-20 needed to achieve the desired consistency. Total mixing time should not exceed 4 minutes at slow speed; longer mixing times may incorporate excess air in the mix. For large areas mobile batcher mixers are recommended. Because of the relatively short working life for latex-modified mixes, the amount mixed will be limited by the placing and finishing time. Steel troweled finishes are difficult if not impossible to produce without surface cracking.

#### **Used as a Bonding Grout**

Mix 1 gallon (3.8 litre) PVA-20 with 20 lbs. (9 kg) cement. Mix to a creamy consistency. Scrub grout onto prepared surface to be bonded. Mix only that quantity that can be used in 15 minutes. Place concrete before grout dries.

#### **Curing Procedures**

A PVA-20 polymer film formed as a latex coalesces helps to maintain high levels of internal moisture in the concrete. Because of this, prolonged curing is neither necessary nor recommended. To prevent shrinkage cracking before the film has formed, however, all finishing operations must be completed and the surface covered with layer of wet burlap as soon as the surface will support it. This is left in place for 24-48 hours, removed, and the surface permitted to dry for 3 to 5 days.

Exposure of PVA-20 modified cement mixes to solvent based curing or sealing compounds may create a slight softening of the modified cement when they are applied prior to full cure. To avoid this softening, cure with wet burlap and apply sealing compounds after modified cement has fully cured.

#### **Limitations**

*Polyvinyl acetate latexes (PVA-20) require air curing and become less effective in very moist environments. PVA-20 provides excellent results with intermittent water exposure, but is not recommended for use in areas of continuous exposure, such as*

*swimming pools or water tanks. Use a non-redispersable product such as LAMBERT'S ACRYLBOND for areas of continuous water exposures.*

Do not apply where hydrostatic water pressure is present in the substrate, or over concrete which is frozen. Not recommended for use with anti-freeze agents, accelerators, or air entraining admixtures. Do not store PVA-20 below freezing temperatures. Prolonged freezing may damage contents. Frozen material should immediately be placed in a warm environment to gradually thaw. Direct heat should not be applied. If product can be stirred easily after thawing, bonding qualities most likely have not been lost. Apply a test patch with the system specified to determine bonding qualities of the frozen material.

PVA-20 latex emulsions have a minimum temperature below which the polymer spheres will not coalesce to form a tough durable film. This placement temperature is 45°F (7.2°C). Placement at temperatures above 85°F (29.4°C) is not recommended because the working time is generally too short.

**FAST SET PATCHING CEMENTS MUST BE APPLIED WHILE PVA-20 FILM IS STILL TACKY**

#### **Coverage**

Used straight as a bonding agent 250 to 300 sq. ft. per gallon (6.2 to 7.4 m<sup>2</sup>/litre).

Used as admixture to cement mixes, for every 94 pound (42.3 kg) bag of cement used in a mix, 1 gallon (3.8 litre) of PVA-20 is required to obtain the minimum concentration, 2 gallons (7.6 litres) for maximum concentration.

#### **Clean Up**

In case of spillage, flush area with large amounts of water, place into appropriate container, and dispose of in accordance with applicable local regulations. Uncured PVA-20 can be removed with water. Cured PVA-20 can be liquefied with lacquer thinner.

#### **First Aid:**

**Inhalation** - Remove to fresh air.

**Eye and Skin Contact** - Promptly wash eyes with plenty of water for 15 minutes. Consult a physician if irritation persists. Wash skin with soap and water.

**Ingestion** - Drink plenty of water, may cause irritation of the mouth, throat, or stomach. Do not induce vomiting. Seek medical attention for all overexposures.

**KEEP OUT OF REACH OF CHILDREN**

## **6. PACKAGING**

- 55 gallon (209 litre) Drums
- 5 gallon (19 litre) Plastic Pails
- 1 gallon (3.8 litre) Plastic Jugs (4 to case)

## **7. WARRANTY NOTICE**

**DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY:** LAMBERT CORPORATION, (Seller) warrants that if any

goods supplied prove defective in workmanship or material, that Seller shall replace them or refund their purchase price. THIS WARRANTY IS MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS WHICH ARE HEREBY DISCLAIMED. IT IS UNDERSTOOD AND AGREED THAT BUYER'S SOLE REMEDY, AND THEREFORE SELLER'S LIABILITY, WHETHER IN CONTRACT, TORT, UNDER ANY WARRANTY, IN NEGLIGENCE, OR OTHERWISE SHALL BE LIMITED TO THE RETURN OF THE PURCHASE PRICE PAID BY PURCHASER OR REPLACEMENT OF ANY DEFECTIVE GOODS SOLD BY SELLER AND UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES. THE PRICE STATED FOR THE GOODS IS A CONSIDERATION IN LIMITING SELLER'S LIABILITY. Any liability or risk resulting from the use of this product is assumed by the PURCHASER/USER except where a specific warranty is provided by the manufacturer in writing. Before application, the PURCHASER/USER shall determine the suitability of the product for his intended use and PURCHASER/USER assumes all liabilities and risks whatsoever in connection therewith. The terms of this WARRANTY NOTICE may not be orally modified. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF.

## **8. PRODUCT LIABILITY**

LAMBERT CORPORATION products are designed to be used in the construction industry and should be applied by competent persons in accordance with current published instructions. Technical advice and recommendations as to the suitability of product for any particular use are made in good faith. However, we have no control over the conditions under which our products are transported to, stored, handled or used by the customer. We cannot be held responsible for difficulty caused by other materials and conditions, or by inferior workmanship. LAMBERT recommends that the customer satisfy themselves as to the product's actual suitability for its intended purpose.

LAMBERT reserves the right to have the true cause of any difficulty determined by accepted test methods by an independent party. Any claim regarding product defect must be received in writing one year from day of shipment. No claim will be considered without such written notice or after the specified time interval.