

**SECTION 03540**

RECOMMENDED SPECIFICATION FOR  
**SCHÖNOX APF FIBER REINFORCED SELF LEVELING UNDERLAYMENT COMPOUND**  
FOR CRITICAL SUBSTRATES SUCH AS:  
GYPSUM, WOOD, EXISTING CERAMIC, TERRAZZO, SHEET VINYL, OSB BOARD AND PLYWOOD

**PART 1 – GENERAL****1.01 SUMMARY**

- A. This is the recommended specification for **Schönox APF Fiber Reinforced Self Leveling Compound** designed for renovation work for leveling substrates such as; gypsum, wood, existing ceramic, terrazzo, sheet vinyl, OSB board, concrete cement substrates, and plywood above grade. Once mixed with water, it can be pumped or poured and provides a smooth, hard flat surface. This leveling compound has embedded fibers which provide additional reinforcement for critical substrates.

**1.02 SECTION INCLUDES**

- A. **Schönox APF-** Fiber Reinforced Self Leveling Underlayment
- B. **Schönox VD-**Primer for porous substrates
- C. **Schönox SHP-**Primer for non-porous substrates
- D. **Schönox AST-**Synthetic Feather Edging Material
- E. **Schönox SL-**cement based patch for under primer

**1.03 QUALITY ASSURANCE**

- A. Installation of the “Synthetic Gypsum” based, self-leveling underlayment must be done by a qualified installer, using equipment and tools recommended by the manufacturer.
- B. Underlayment shall be installed from 1/4” to 5/8” without aggregates.
- C. Underlayments shall develop a compressive strength of 5800 psi per ASTM C109/mod (air cure only) and a flexural strength of 1550 psi per ASTM C348.

- D. Underlayment shall be ready for foot traffic after approximately 3 hours and be ready to receive floor covering after approximately 24 hours, up to 1/8" layer thickness.
- E. Installation shall be performed by an INSTALL certified contractor.  
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**1.04 DELIVERY, STORAGE AND HANDLING**

- A. General requirements: Materials shall be delivered in their original, unopened packages and protected from the elements. Avoid extreme hot or cold, direct sunlight and moisture. Damaged materials shall be removed from the job site.

**1.05 SITE CONDITIONS**

- A. **Schönox APF** IS A **"SYNTHETIC GYPSUM"** material.
- B. All slabs on or below grade must be known to have an intact vapor retarder directly beneath the concrete in accordance to the relevant standards. Do not install below 41° F surface temperature. Install quickly if floor is warm. Never mix with cement or additives other than **Schönox** approved products.

**PART 2-PRODUCTS**

**2.01 MATERIALS**

- A. The "Synthetic Gypsum" based leveling underlayment shall be **Schönox APF**.  
**CONTACT - DAWN BONETTI**  
**CDC DISTRIBUTORS, INC. FOR PRICING**  
**248-563-4400    dbonetti@cdcdist.com**
- B. The Primer for standard porous substrates shall be **Schönox VD**.
- C. The primer for non-porous substrates shall be **Schönox SHP**.
- D. Repair of small holes and indentations can be done with **Schönox SL**, before prime and pour
- E. Use **Schönox AST** for correcting any imperfections after leveling.

**2.02 MIX DESIGNS**

- A. Mixing ratios: **Schönox APF** 55 lb bag with 5.8 quarts of water. Product shall be mixed in a clean mixing drum. Add **Schönox APF** to cold clean water to form a homogenous mixture. This compound should be thoroughly mixed for approximately 3 minutes. Use of a heavy-duty drill (min 600 rpm) is recommended to obtain a lump-free mix, after 3 minutes mix again. **DO NOT OVER WATER!** Follow written instructions per **Schönox APF** bag label or product data sheets.
- B. For pump installations **Schönox APF** shall be mixed using an automatic mixing pump. Start the pump and adjust to the minimum water reading that still allows self-leveling properties. **DO NOT OVER WATER!** Check the consistency of the product on the floor to ensure a homogeneous mixture of the pour. If settling is occurring, reduce the water amount and recheck. Conditions during the installation, such as variation in water, powder, substrate and ambient temperature, require that the water setting be monitored and adjusted carefully to avoid overwatering.

## PART 3-EXECUTION

### 3.01 PREPARATION

- A. Subfloors must be smooth, sound, clean, dry and free of any contaminants which may hinder adhesion. All subfloors must be solid, sound and primed properly. Any loose areas must be mechanically removed back to a sound base and substrate repaired with **Schönox** repair compounds as required.
- B. Subfloors shall be inspected and corrected for moisture and any other condition that could affect the performance of the underlayment or finished floor covering. This product is not a vapor barrier and will allow free passage of moisture. Follow the directives of the floor manufacturer regarding maximum allowable substrate moisture content and test the substrate prior to installing **Schönox APF**. Where substrate moisture exceeds the maximum allowed then an application of **Schönox SDG** or **Schönox EPA** may be used to suppress residual moisture (see data sheet). **Schönox SDG** is suitable for cement based substrates with residual moisture up to 93% RH or 12 lbs. and **Schönox EPA** is suitable for cement based substrates with residual moisture up to 100% RH or 25 lbs.
- C. Gypsum substrates should always be dry. Do not use damp proof membranes on gypsum substrates.

- D. Old water-soluble adhesives should be removed completely; old water resistant adhesives should be mechanically removed as far as possible. The complete mechanical removal of cutback (i.e. grinding or sanding) can be hazardous as old cut-back adhesives may contain asbestos. Consult with government agencies for removal of flooring adhesives that contain asbestos. Prime remaining adhesive residues accordingly.
- E. Old floors such as ceramic tiles should be thoroughly cleaned and abraded.
- F. All cracks and non-moving joints in the subfloor shall be repaired.
- G. It is the responsibility of the flooring contractor to ensure that the subfloor is thoroughly clean and properly anchored prior to the installation of any **Schönox** products.

## B. PRIMING

1. Initial priming on standard absorbent substrates such as; cement or concrete
  - A. **Schönox VD** is stirred or shaken before use. Apply **Schönox VD** avoiding puddles using a suitable tool such as; a roller, paintbrush, or push broom. **Schönox VD** can be sprayed when mixing 1:1 or more. Mix **Schönox VD** (1:3 with water). A second application is recommended on strong absorbent substrates. Waiting time is approximately 10 minutes on cementitious substrates.
2. Priming on non-absorbent, smooth, sound substrates.
  - A. **Schönox SHP** is stirred or shaken before use. Apply **Schönox SHP** avoiding puddles using a suitable tool such as; a roller, paintbrush or short-pile roller or pad. Apply undiluted. Drying time is about 1-2 hours before underlayment's can be installed.
3. Priming Gypsum Substrates (sanded and vacuumed)
  - A. **Schönox VD** is stirred or shaken before use. Apply **Schönox VD** (diluted 1:1 with water) avoiding puddles using a suitable tool such as; a roller, paintbrush, or push broom. **Schönox VD** can be sprayed when mixing 1:1 or more. Drying time can be omitted.
4. Priming on wooden substrates such as; OSB Board, Plywood (APA Grade)

- A. **Schönox VD** is stirred or shaken before use. Apply **Schönox VD** (undiluted) avoiding puddles using a suitable tool such as; a roller, paintbrush, or push broom. Drying time is about 2 hours.

### 3.02 APPLICATION OF UNDERLAYMENT

- A. Pour or pump the **Schönox APF** and spread using a smoothing trowel. Even surfaces are easily achieved using a pin leveler or gauge rake. In higher thicknesses using a spike roller is recommended. Underlayment can be carefully walked on after in about three hours.
- B. If a second layer of leveling compound is to be applied, prime the first layer with **Schönox VD** (diluted 1:1 with water) after drying. The maximum layer thickness must not exceed the layer thickness of the first layer.

### 3.03 PREPARATION FOR FLOORING INSTALLATION

- A. Underlayment can accept finished floor covering materials after approximately 24 hours for layer thickness up to 1/8". See manufacturer's recommendations for subfloor requirements.

### 3.04 FIELD QUALITY CONTROL

- A. Where specified, field sampling of **Schönox** leveling compounds is to be done by taking an unopened bag of the product being installed to an independent testing facility to perform the compressive strength testing in accordance to ASTM C 109/modified: air cure only.

### 3.04 PROTECTION

- A. Prior to installation of the finished flooring, the surface of the underlayment shall be protected from abuse by other trades by use of plywood, Masonite or other suitable protection.

**END OF SECTION**