# ConfiAd® Manual for Grouting Adhesives Application

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# **1. Safety Guidelines**

#### "Safety is the most important thing."

All fabricators and Installers are required to maintain a safe work environment. For preventing an accident, please follow the general safety rules as below.

- 1) To prevent injuries, always wear proper gear
  - Safety glasses (OSHA approved), Ear/Nose Protection, Safety Shoes (non-slip), Dust Masks, Hair-protective covering, and etc.
- 2) Wear appropriate apparel. Avoid wearing loose clothing, gloves, neckties, rings, bracelets, and other jewelry.
- 3) Keep work area clean, dry, well-ventilated, and well-lighted at all times.
- 4) Read instruction manuals before operating all tools and equipment. Learn and follow all manufacturers safety guidelines of all tools and equipment used in the shop.
- 5) Use the right tools. Don't force a tool to do a job for that it was not designed.
- 6) Tools exposed to water or moisture must be equipped with a **G**round **F**ault **C**ircuit Interrupter (GFCI).
- 7) Keep tools in top condition for the safest performance.
- 8) Do not overreach.
- 9) Follow all OSHA and ANSI Safety guidelines.



# 2. ConfiAd<sup>®</sup> Grouting Adhesive

#### 2.1 Product

**ConfiAd**<sup>®</sup> Grouting Adhesive is knife-grade polyester resin based two-component adhesive designed for **Grouting** of **"Natural Stones"** and **"Engineered Stones"**.

#### Features

- Good bonding strength
- High viscosity suitable for vertical application
- High Tixotropic (Easy to mix and apply)
- Fast drying and hardening
- Well polishable and grindable
- Low styrene contents
- Yellowing resistant
- Bulk (1L, 4L) available



ConfiAd® Grouting Adhesive

### 2.2 Specification

Specification	ConfiAd <sup>®</sup> Grouting Adhesive (1L, 4L)		
Specification	Medium		
Working Time at 22℃ (72℉)	4~10 min		
Fixture Time at 22℃ (72℉)	20~25 min		
Operating Temperature	Max 75 °C (167 °F)		
Gap Filling	Less than 5mm (0.2")		
UV Stability	Excellent		
Heat Stability	Excellent		
Mixed Specific Gravity	1.45		
Flash Point	31 ℃ (87.8 °F)		
Shelf Life at 22℃ (72°F)	1 Year		
Flexural Strength (ASTM D790)	150 kgf (2,150 psi)		
Mix Ratio by Volume (ml)	A : B = 100 : 1.3 ~ 2.6		
Mix Ratio by Weight (g)	A : B = 70 : 4.0		
Viscosity (cPs) at 23°C (73°F)	A (200,000 ~ 300,000) B (30,000 ~ 40,000)		

### 2.3 Shelf Life

- 1) Component A: 1.5 Years
- 2) Component B: 1 Year
- **X Note**

Strictly follow our storage and handling procedure to keep the shelf life.

### 2.4 Handling, Storage

#### 1) Storage

- a) Store adhesives in a cool place away from direct sunlight.
  - High temperature will reduce the shelf life of component A and B.
  - Exposure of Component B above 38°C (100°F) rapidly diminishes the product's reactivity and thus it must be avoided.
  - Refrigeration is acceptable for extending shelf life. However freezing should be prevented.
  - The recommended measure for longer shelf life is maintaining storage temperature between 10~21°C (50~70°F) constantly.
- b) To extend shelf life longer, the adhesives may be stored in an air conditioned room or a fridge specially designed for the storage of flammable products.
- c) Component B exposed to high temperature during transport or storage will be broken down and lose strength. This will generally show up as a slow, uneven or incomplete cure.
  - Component B stored correctly will last for 1 year or more but will gradually lose reactivity.
  - The decomposition of Component B in high temperature can also release gas out of Component B.
- d) Transportation
  - Needs to be shipped underdeck essentially in order to avoid high temperature (needs to be kept below 25°C)
  - Avoid long term transportation when shipping inland.

### 2) Handling

ConfiAd<sup>®</sup> Grouting Adhesive is flammable and can be dangerous if used improperly.

- Avoid contact with eyes, skin and clothing.
- Wash with soap and water after skin contact.
- Harmful if swallowed. Keep out of the reach of the children.
- In case of eye contact, flush with water for 15 minutes and get medical attention.
- Keep away from heat, sparks, open flame and other combustible materials.
- Before use or handling, consult the appropriate Material Safety Data Sheet.
- Avoid breathing vapor and use only with adequate ventilation.
- Wash hands thoroughly after handling.

# 3. Preparation

### 3.1 Required Tools

Following tools are required for applying ConfiAd<sup>®</sup> Grouting Adhesive.

#### **Basic Tools**

- Grout Remover (Oscillating Tools, Grinder, etc.)
- Blade for removing grout
- **ConfiAd**<sup>®</sup> Grouting Adhesive (Component A, Component B)
- Dust drain
- Covering Tape (400 ~ 2,400mm width)
- Masking Tape (25mm width recommended)
- Scraper (Spatula)
- Mixing Plate

#### Safety Equipment

- First-Aid Kit
- Safety Glasses
- Gloves
- Ear Plugs
- Dust Masks



ConfiAd® Grouting Adhesive



**Covering Tape** 



**Grout Remover** 



Masking Tape



Scraper

#### 3.2 Pre-treatment

- The surface to be treated must be clean and completely dry. Ensure that the area is free from stagnant water, dirt, dust, and foreign materials.
- Remove the spacers and excess glue cement to ensure uniform joints.

### 3.3 Technical Notes

- Prior to the grouting, check the adhesive color matching to the stones.
- Check all the working condition and adhesive specification and then follow the application procedure in this manual.
- Always try the product in an inconspicuous area prior to use.
- Sensitive surfaces such as wood, parquet, carpets, etc. must be protected against splashes using covering tape.
- Before use, set the adhesive amount (Component A and B) within curing time.
- The amounts of hardener higher than 4% could reduce adhesion strength and cause a yellowness in the hardened product.
- The amounts of hardener less than 1% and low temperatures (below 5 °C/41°F) considerably delay hardening time.
- The bonding layers may be shrunk (5~8%) caused by the hardening reaction process.
- Until the adhesive is completely dry, do not apply force on the surfaces.
- In the case of "Translucent Color", it may "extender filler"
- After hardening, the adhesive should not be removed by solvents.

Removal is only possible mechanically.

# 4. Application

### 4.1 Covering

• Using covering tape, protect sensitive surfaces such as wood, parquet, carpets, etc. against splashes.

### 4.2 Removing Old Grout

- In case of grout replacement, the grout remover (Oscillating Tools or Grinder, etc.) is required.
- Wear protective equipment.
- Read the manual carefully before operating the grout remover.
- Remove the old grout using the grout remover.
- ※ Be careful not to touch the edges of the stone as you can chip some off.
   Ensure that the device is not used in the rain or wet areas.
   For removing grout in corners, grout saw can be used.
- Clean all the dirt and debris with a vacuum cleaner especially in grout lines.



### 4.3 Applying Masking Tape

- This work helps to make straight uniform grouting lines and minimize the cleaning up time.
- Apply masking tape along both side of the grout lines 1~2mm apart.
  ※ 25mm width masking tape recommended..

### 4.4 Mixing

• Before mixing component A and Hardener (Component B), plan the adhesive amount per 1 mixing considering the working time at the current temperature.

Constitution	Hardener % to Component A				
Specification	1%	2%	3%	4%	
Working Time at 22℃(72℉)	25 ~ 26 min	8 ~ 9 min	6 ~ 7 min	4 ~ 5 min	
Fixture Time at 22℃ (72℉)	50 ~ 52 min	16 ~ 18 min	12 ~ 14 min	8 ~ 10 min	

#### ※ Note

- The higher temperature you work at, the faster hardening time you get.
- The more hardener you add, the faster hardening time you get.
- The amounts of hardener higher than 4% can reduce adhesion strength and cause a yellowness in the hardened product.
- The amounts of hardener less than 1% and low temperatures (below 5  $^{\circ}C/41^{\circ}F$ ) considerably delay hardening time.
- Take necessary amounts of Component A.
- Add the 2~4% hardener (Component B) in weight to Component A, depending on the hardening time.
- Mix both components thoroughly.



## 4.5 Applying Grout

- Using scraper, at a 45° angle, force the grout into the joints.
- Ensure that all joints are completely filled without voids and gaps.
- Remove excess grout with scraper while the grout is still fresh.

**※** Keep the cans closed after usage.



# 4.6 Cleaning

- Allow the grout to sufficiently dry.
- Clean with **ConfiAd® Neutral Cleaner** and single disc professional cleaning machine attaching white soft discs.
- Remove the residue and the excess with a vacuum or a cloth.

## 4.7 Grinding & Polishing

- Using the professional floor machine, remove scratches.
- And then with diamond polishing pads, do the polishing works.
- Using **ConfiAd®** Marble Polishing Powder, create a high reflective finish.



