

Instructions for acid cleaning exterior brickwork

1. Check that the delivered bricks can be acid cleaned

Before brick construction begins, check that the delivered bricks can be acid cleaned. This will appear on the product declaration/label supplied with the bricks.

The following types of bricks must not be acid washed:

RT 101 / RT 102 / RT 103 / RT 150 / RT 151 / RT 152 / RT 153 / RT 154 / RT 155 / RT 156 / RT 157 / RT 158 / RT 159 / RT 160 / RT 438 / RT 472 / RT 473 / RT 474 / RT 475 / RT 476 / RT 478 / RT 484 / RT 495 / RT 510 / RT 513 / RT 515 / RT 517 / RT 520 / RT 522 / RT 531 / RT 536 / RT 540 / RT 542 / RT 546 / RT 547 / RT 548 / RT 550 / RT 551 / RT 554 / RT 556 / RT 572 / RT 575 / RT 601 / RT 602 / RT 603.

2. Clean walls with mortar joints

Acid cleaning can cause colour changes on bricks and mortar. The acid can soak into the brickwork, weaken the mortar and slow down the hardening process. The brickwork must be kept clean during brick construction and the mortar joints must be pressed before they lose plasticity.

Work so clean that acid cleaning can be avoided.

3. Cleaning brickwork without acid wash

When the mortar is dry enough remove any residue mortar from the brickwork with an RT scouring sponge. The scouring sponge should be clean and dry during the process.

As a final treatment the brickwork can be cleaned with water. Use a rubber foam board with a little water.

4. Cleaning brickwork with acid wash

The acid should be pre-mixed brick acid 1:20 (1 part 30% hydrochloric acid to 20 parts water).

There is a risk of discoloration with higher concentrations of acid and a chemical analysis can show whether the instructions have been followed.

5. Carrying out acid cleaning

A rubber foam board with a bucket and a roller are used for acid cleaning. The board is pressed over the roller, so the amount of hydrochloric acid necessary to clean the brickwork is minimized. It is important that the acid cleaning is done at the right time. If the mortar is not dry enough, mortar material will be pulled out of the brickwork surface, and it will leave a grey and discoloured haze when the walls are dry.

Acid cleaning is usually carried out 5-24 hours after brick construction, depending on:

- Mortar binding material content
- Brick absorbency
- Weather conditions

The acid must be changed at intervals, because contaminated acid can cause discoloration.

6. Acid cleaning is prohibited - Internal brickwork

Internal brickwork must not be acid cleaned with hydrochloric acid. Acid fumes can cause corrosion damage to metal objects and coatings on glass and metal surfaces. Acid fumes are emitted a long time after the building's occupancy and also affects the indoor environment.

This guide is based on "Tegl 37 BRICKWORK", November 2010 and MUROs instructions "Acid washing exterior brickwork", July 2008.