

# Brick Cleaning with Hydrochloric Acid



## PRECAUTIONS

Protective clothing may be worn and you must follow the necessary safety and chemical storage precautions for working with Hydrochloric Acid.

If this method is used incorrectly, it can result in unsightly staining that is more difficult to remove. In particular, care should be taken to treat any vanadium stains prior to cleaning.

If staining does occur, refer to Think Brick Australia's manual titled Clay Masonry Cleaning Manual, available for download at [www.think.brick.com.au/technical](http://www.think.brick.com.au/technical)

## CLEANING MORTAR STAINS WITH HYDROCHLORIC ACID

For best results, clean bricks by hand during installation. Hydrochloric Acid is used to remove mortar stains from clay brickwork. Hydrochloric Acid should not be used to treat any other stains or at any other time during the life of your brickwork.

The following procedure is recommended when cleaning with hydrochloric acid:

1. All mortar dags should be removed using either a metal or wood scraper.
2. Protect all areas which may come in contact with a cleaning agent as recommended by the manufacturer of the proprietary cleaner. Special care should be taken with window frames aluminium damp courses and gutters.
3. Saturate the area of brickwork to be cleaned and all adjacent areas below with water.
4. Use the correct ratio of hydrochloric acid and water
  - Light coloured bricks: 1 part hydrochloric acid to 20 parts water
  - Dark coloured bricks: 1 part hydrochloric acid to 10 parts water

**WARNING:** Under no circumstances should more than 1 part hydrochloric acid to 10 parts water be used. It is better to scrub more vigorously than use more acid.

5. When cleaning, try not to work in direct sunlight.
6. Always begin at the highest point and work down the wall.
7. Only clean small areas at a time - e.g.: one square metre - so as to allow adequate time to wash off the cleaning solution and ensure no staining occurs.
8. Allow solution to remain on wall for 3-6 minutes before scrubbing. Be sure not to scrub the joints.
9. Rinse thoroughly, making sure all cleaning solution has been removed.

All light coloured brickwork and internal exposed brickwork washed with acid should be neutralised. Light coloured bricks are more susceptible to vanadium and acid burning, and so must be rinsed with a neutralising solution of bicarbonate of soda / washing soda and water (250g per 4 litres of water). This should be done within an hour of the acid wash.