

General aspects:

• Reception of SAS products

The PALLET is our unit of sale and packing. Therefore, you will receive our products on wooden pallets, shrink-wrapped with a plastic cover and in some cases strapped. All our packing materials are recyclable. Our shrink-wrapped covers contain an ultraviolet inhibitor with a sun resistance of 12 months.

The pallets are built according to the part format they will carry. They are not recoverable. Our pallets weigh between 250 and 1.600 Kg.

Certain products, such as the WEDGE BLOCK, ROUGH-HEWN MOULDINGS and the WATER SPROUTS are supplied in cardboard boxes which must be protected from the damp.

Once the pallets or cardboard boxes have been opened, the parts must be removed and handled with care so as not to damage the products. Parts should be handled with clean hands to avoid soiling them. SAS cannot be held responsible for undue handling.

• The Foundations.

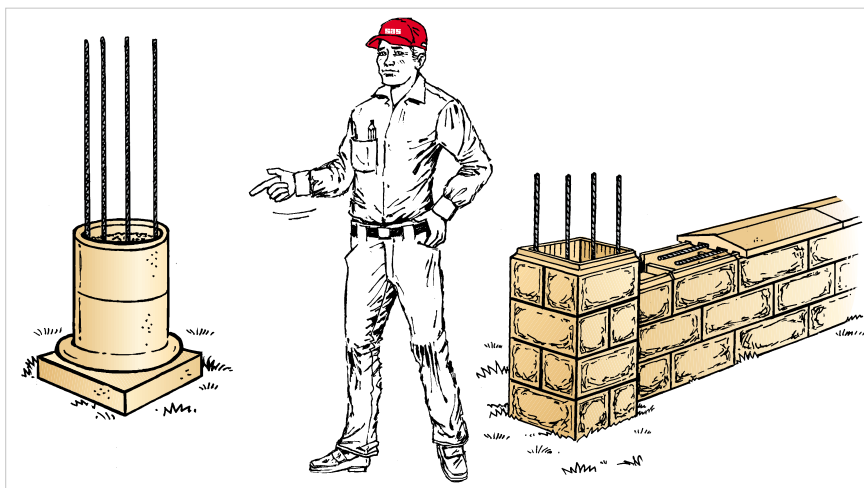
As a general rule foundations should be wider than what is going to be made (wall, balustrade, etc.) to achieve an even distribution of the weight of the material on the base of the ground. The depth of the foundations will depend on the quality and consistency of the ground and the building stress. For areas subject to heavy freezing the foundations should be deeper. It is very important that foundations be level, since this will prevent problems of levelling the work. For fences over 2 m in length, it is advisable to reinforce the foundations with rods.

• Binding with metal bars.

For an ensemble to bind well it must be reinforced with metal bars, as it should not be forgotten that there is always subsequent movement and these elements are subject to lateral stress. A wellbound unit will gain in STRENGTH. Binders usually consist of corrugated steel rods placed along the part, as well as other smaller-diameter bars, arranged transversally, which are attached to the steel rods. The following SAS products require metal bars for installation:

- Column.
- Screenwalling.
- Pillars and blocks.
- Louvers.
- Window panels.

In each case the diameter of the rod that is to be used will be different, as will the way it is installed.



Binding mortars.

If we are installing SAS products with mortar, we recommend bagged mortar prepared by the manufacturer. For filling Pillars, Classic Piers, Blocks, etc., the type A (for further information, see " Mortars: Type A and type B ") grey mortar will suffice.



For mounting Balusters, Screenwalling or any other of our products, COLA-SAS tile cement should be used. We recommend COLA-SAS tile cement for joints.

Planning the job before starting.

- **Make a diagram.**

Remember that it is important to make a diagram with measurements before installing any of our products. This will make for maximum certainty in the work, and make sure that no material will be missing.

For example, when we are going to make a fence with pillars and blocks we will take into account at what distance we will mount the pillars (5 m maximum) to get maximum strength, and we shall also need metal bars. It is also important to know that the pillars

- **Choose the installation day.**

Try to avoid very hot days. The right temperature is between 5°C and 25-30°C. Avoid freezing.

The humidity should be right, since setting mortar produces a temperature increase and water is evaporated from it.

- **Mixing and setting.**

The mortar must be mixed well. Mixing time must guarantee that all the materials are totally mixed and homogenised. Setting begins after thirty minutes, and takes about 10 and 12 hours, whereupon hardening begins.

- **Installation.**

If we are installing parts with mortar they must be soaked in water for two hours and left to drain for 10 minutes before installation to prevent them from absorbing water from the mortar. If the parts are installed with tile cement they need not be pre-wetted.

- **Pointing.**

Pointing consists of removing the mortar from the joints between two contiguous building parts by scraping to a depth of about 20 mm, followed by filling with a mixture that is more humidity-resistant.

We recommend pointing with COLA-SAS tile cement and protecting the end of the parts to be pointed with adhesive tape to prevent staining, and also to make subsequent piece cleaning easier.

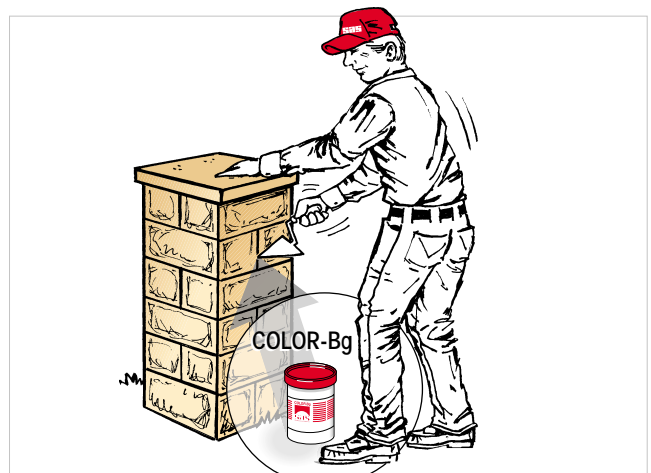
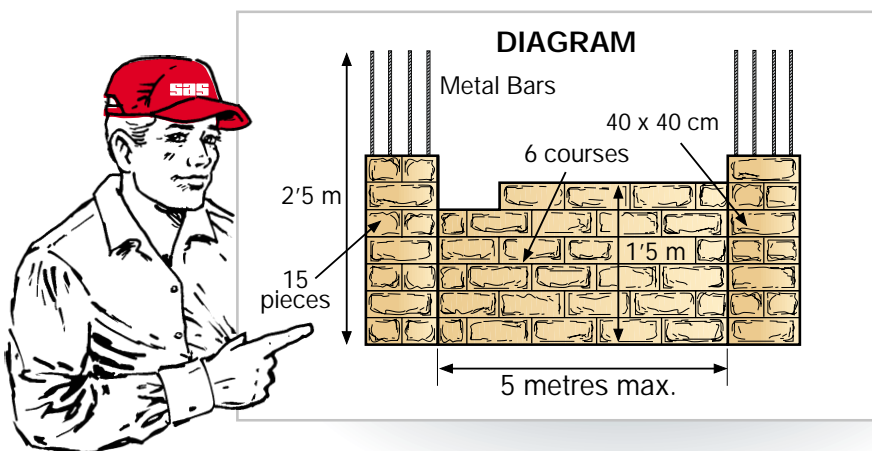
that support doors or other elements must be 40 x 40 cm. For normal closures the recommended pillar height is 15 parts (2.5 m) and 9 courses for blocks (1.5 m height).

- **Calculate the material required.**

Besides making a preliminary diagram before installing the product we should also calculate how much material we are going to need. Add 5% extra, since material will always be lost through cuts, deliveries, breakage, etc.

- **Mix the parts.**

If we are going to be using more than one pallet of products we should mix the parts to harmonise tonalities. Nevertheless, in SAS products minor colour variations are only perceptible in beige.



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Our COLOR-Bg colorant should be used for pointing beige concrete products, at the dosage indicated on the tin.

Warning: Cement alone, i.e. 100% cement, tends to be used as mortar. If the joints are rather thick retractions may occur, with cracks appearing that may even affect the SAS pieces.

• Water the product.

The day after the SAS material is installed it should be wetted two or three times to maintain the humidity for a few days after installation, particularly in summer and in places exposed to the sun, particularly in dry climates.

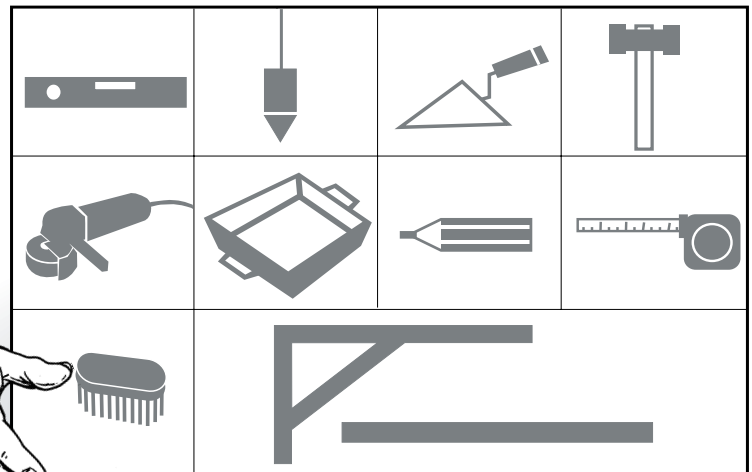
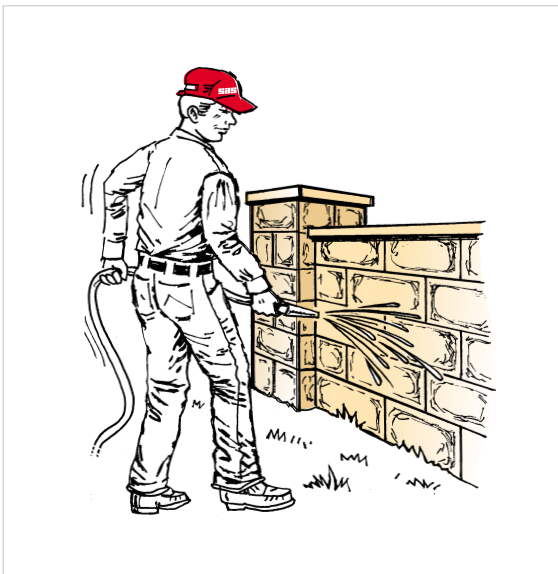
• Cleanliness:

Be careful not to stain pieces during installation, stains can be removed by washing with water and brushing them immediately, or else using our SAS-NET cleaning product.



• Tools required:

The following tools will be needed to install SAS products: level, plummet, trowel, mallet, grinder, drawer, pencil, flexometer, brush and cloth, bricklayer's ruler and square.



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Products to be used, application and technical characteristics.

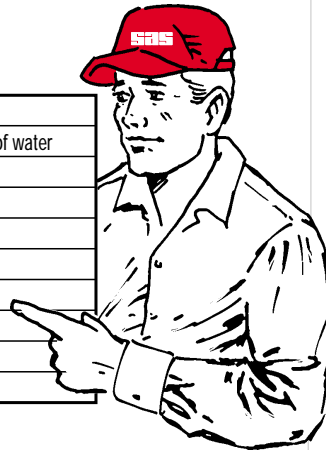
• COLA-SAS

Application:

For mounting any SAS product.

Technical Data COLA-SAS

Apparent density of the powder	1.6 g/cm ³
Mixing water	4 parts COLA--SAS per 1 of water
Apparent density of the paste	2.0 g/cm ³
Time open once applied	20 min.
Mixture life	2 hours.
Time for adjusting the parts	45 min.
Joint filling	24 hours
Full hardening	14 days
Application temperature	5 - 40°C
Tensile strength	10 Kg./cm ²



pieces to be joined should be pressed together.
- Clean any excess material with a sponge.

For filling Pillars, Classic Piers, Blocks, etc., the type A grey mortar will suffice. Use white or grey type B mortar for installing Wall coping, Pillar caps etc., depending on the colour of the product. **Mortar Type A:** 1 volume Portland cement type CEM II/ B-P 32,5N, 4 of sand, sieve analysis: 0-3 mm, and 2 of gravel, sieve analysis: 3-6 mm. **Mortar Type B:** 1 volume Portland cement type CEM II/ B-P 32,5N, and 4 of sand, sieve analysis: 0-3 mm. COLA-SAS tile cement can also be used.

We recommend COLA-SAS

Properties:

- Excellent adherence.
- Easy to apply.
- No need to wet the substrate.
- Excellent degree of water retention.

How to use COLA-SAS:

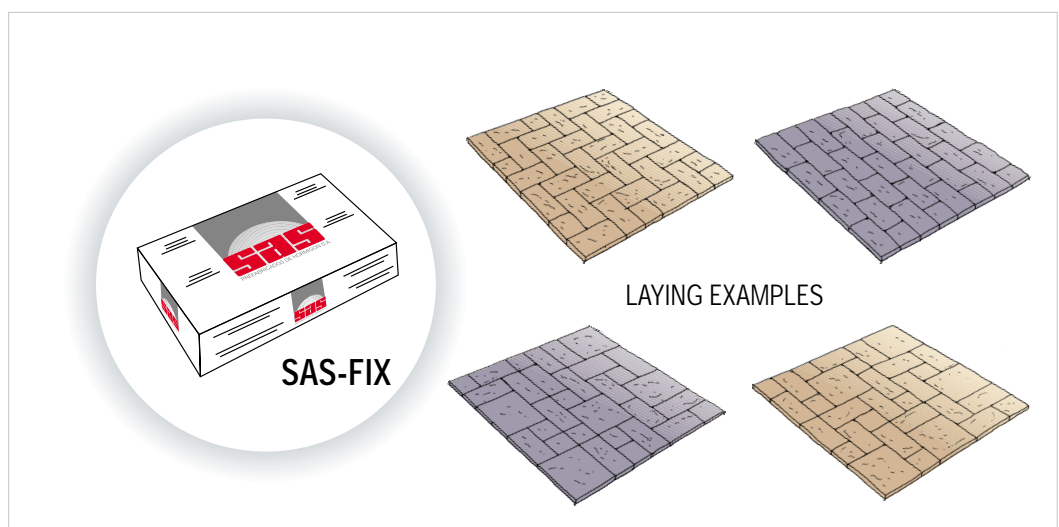
- The substrate should be strong, free of dust and with no paint, oil stains, etc.
- Mix 1 part of water approximately per 4 parts of COLA-SAS until you get the consistency you require.
- Allow to stand for 10 min.
- Mix again until you get a homogeneous paste.
- Mixture life 2 hours.
- Following the application of the COLA-SAS on the substrate you must install the piece within 15 minutes at most.
- In all applications the

cement for joints.

• SAS-FIX. Flooring sealing.

Properties of SAS-FIX:

- Resistant to the wind, rain and washing with mechanical sweeping machines.
- Brush-applied. No tools or special equipment needed. The ideal



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way is to press the product on the joint with gloved fingers, or with the help of an instrument, and then brush to remove debris.

- It does not stain, and leaves a smooth and attractive finish.
- Application is up to 20 times faster than traditional methods.
- Resistant to freezing, thawing slats and chemical products.
- Prevents the growth of weeds and plants in the joints.
- Not impermeable

Storage conditions / Storage time:

Can be stored for 24 months in a cool and dry place, when kept in its original closed packaging. Do not puncture the container, any contact with the air will trigger hardening.

Handling and transport:

The usual preventive measures for the handling of chemical substances should be adopted, such as the use of goggles and gloves.

Use only in well-ventilated places.

The product is not hazardous for road freight.

Application:

Open the vacuum-sealed bag and empty out enough SAS-FIX to cover an area of 4 / 5 m².

Use a soft brush or a hand broom to work the SAS-FIX into the joints.

Press the product inside the joint with the help of a pointer or suitable tool.

Try to keep the product below the level of the tiles so that the uneven appearance of the edges will stand out.

Collect any surplus product, as it can be used to fill other joints, as long as the application time is not overreached.

The hardening time for SAS-FIX is from 2 to 6 hours at 20°C. Once the bag has been opened the product should be applied within 60 minutes.

Approximate yield: 1Kg/m².

• Silicon for sealing expansion joints.

We recommend special silicon for expansion joints for sealing expansion joints. White, grey or beige silicone can be used, depending on the colour of the flooring. The distance between expansion joints will be different in each case and must be the distance indicated by the technical management.

• SAS-FUGUE. Product aging and waterproofing.

To guarantee optimal aging of pieces and achieve extra protection, a coat of priming should be applied with SAS-FUGUE colourless surface waterproof sealant.

Characteristics:

SAS-FUGUE is a ready-to-use colourless surface waterproof sealant for any artificial stone product which forms a self-cleaning film that repels dirt and water.



Priming:

One week after the installation of the pieces when the whole unit is totally dry.

It is applied with a brush to sound, dry pieces that are clean and free from dust. Two coats should be applied to saturation.

Yield:

Approximately 0.5 litres per square metre, and 1 to 1.5 litres per linear metre for balustrades.

- Some people also prefer patina, which is achieved without any protection.