BRICKS & BRICK SOLUTIONS



WHY BRICKS?

Bricks are a warm and noble natural product.

In addition, this environment-friendly and durable

building material lasts for a long time. A very long time; up to more than 100 years. And contrary to other materials, a brick wall is very user and maintenance friendly.







Of course, an architect already knows all this. We will quickly list the **advantages of bricks for you:**

- · resistant against high pressure and frost;
- does not shrink and expand during fluctuation of temperature;
- · can absorb heat very well;
- is reusable and recyclable;
- is available in many colours and textures .

No wonder that for centuries architects and customers have a heart for bricks. Bricks do not only resist the ravages of time; this durable material is continuously being reinvented. We at Vandersanden Group are specialised in such innovations. We offer you modern, even advanced bricks and brick solutions.

Bricks are suitable for styles and tastes of all varieties. The photos in this folder illustrate this and will inspire you. We wish you many fascinating brick discoveries.



FACTORS THAT DETERMINE THE APPEARANCE OF THE FAÇADE

- 1. the colour of the facing brick;
- 2. the visible surface texture of the facing brick;
- 3. the size or sizes of the facing bricks;
- 4. the brickwork bond:
- 5. the colour of the joint (if there is one);
- 6. the type of joint (if there is one);
- 7. **combinations** with other materials (if there are any).

This tab will discuss in further detail the various possibilities.



533 Morvan Zwart - Architect: Unknown



45 Lithium - Architect: Stramien cvba, Antwerpen (BE)

WHERE DOES THE COLOUR OF A BRICK COME FROM?

The colour of the chosen facing brick is a decisive factor in determining the look of the façade. In case of glued masonry, that colour becomes the pure colour of the facing brick. But do the colours of the bricks come from? There are several factors that determine the colour:

the colour of the fired clay mixture (the colour of the brick's heart);



the colour of the sand or encobe (thin layer of clay) fired into the surface;



3. colour nuances as a result of the baking process (oxidising or reducing);



Our brickmakers work with the elements that nature provides us with. Their knowhow and creativity result in an extensive colour palette. You can choose from more than 140 colours and that is just our standard assortment!



SURFACE TEXTURE

At Vandersanden you can choose from facing bricks with various textures. The textures give your project its own appearance and character. The texture is the result of the chosen manufacturing technique.





1. MANUALLY

The most well-known and applied facing brick type. Nowadays, this process is done by a machine that imitates the ancient manual form of brick forms.

Working method

A ball of clay is rolled in a sand carpet and placed in a stock brick. This creates folds, which results in a brick surface with grains after the baking process.

Effect

This texture gives the colour of the facing brick more depth and style. The grains create fine lines of shadow due to the effects of light.

2. STOCK BRICK

In principle, this production process is comparable to the manual production process.

Working method

The smooth ball of clay is pressed in a sanded mould. This way no folds are created.

Effect

Smooth brick surface with equal sandfacing. The brick is smoothly shaped.



Eye catching Coralline surface

Some facing bricks from the hand-made assortment are eye-catching because of a slightly different texture of the surface. Not just sand, but a mixture of sand and sawdust is used during the production of these bricks. The sawdust totally burns away in the tunnel oven, but creates a very specific texture that is probably best compared to the surface of coral reef. Examples? Tramonto, Milano, and Viterbo.





3. WATERSTRUCK

A unique moulding technique of which the name hints to the use of sprayed water.

Working method

The ball of clay is not rolled in sand but placed in a non-sanded mould. In advance, this mould is sprayed wet. This way the unfired brick can be taken out of the mould.

Effect

A bit of accumulated air between the clay ball and the wall of the stock brick create a slight texture on the surface. The brick is relatively smooth and shows less grains.

4. NOSTALGIE

A patented mould process of Vandersanden.

Working method

In principle, it is a finishing to the manual mould technique. After the drying process, the unfired facing bricks get extra pigments on the visible surface and get a distressed look by tumbling them. A huge advantage is that this technique takes place before firing the bricks, which is why the same quality guarantees (CE, Benor, etc.) of the manual technique apply to the nostalgia technique.

Effect

A bit of accumulated air between the clay ball and the wall of the stock brick create a slight texture on the surface. The brick is relatively smooth and shows less grains.



SPECIAL TECHNIQUES

In addition to texturing and sand-facing bricks, there are also other ways of making a brick unique.

APPLYING COAL SLAGS

Coals slags, which are typical for old and traditional brick kilns, are imitated using special techniques.

Working method

Before the firing process, a mixture of natural starting materials is spread between the unfired bricks. This way the percentage of coal slags can be controlled, which creates a proper distribution over the entire package of bricks. Some examples? Vecto, Kripto, Salvia applied with coal slags.





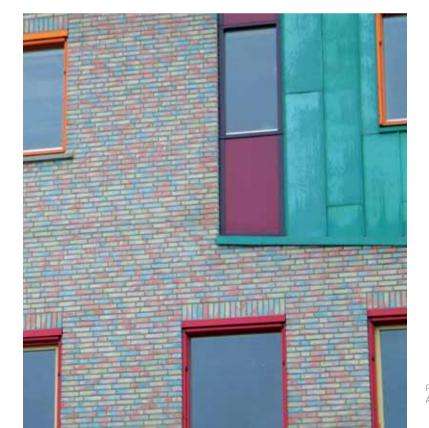
EMBOSSING Precise carving and a special subsequent treatment give the brick surface more relief. As a result, the brick appears to look like a rock.

APPLYING ENCOBE (THIN LAYER OF CLAY)

Encobes are pigments that mostly consist of clay minerals and oxides.

Working method

Mixing in water creates a liquid mass. A thin layer of this substance is sprayed on the unfired bricks with special sprinkler nozzles. In the oven these encobes sinter to the surface. Encobe stains can partially or entirely cover the brick surface. They exist in all the colours of the rainbow.





Project: Applying Cameo encobe, Isala clinic, Zwolle (NL) Architect: Alberts & Van Huut B.V., Amsterdam (NL)



SIZES

The size is very determining for the appearance of a façade. The larger the size, the larger the share of the bricks in proportion to the joint mortar. And the other way around.

Most colours in the assortment of Vandersanden Group facing bricks are available in the following sizes:

M50

± 190 x 90 x 50 mm (± 83 pieces per m²)

'Waal' size (WS)

 $\pm 210 \times 100 \times 50 \text{ mm}$ ($\pm 72 \text{ pieces per m}^2$)

M65

± 190 x 90 x 65 mm (± 66 pieces per m²)

Thick size (TS)

± 210 x 100 x 65 mm (± 58 pieces per m²)

NS

± 240 x 115 x 70 mm (± 48 pieces per m²)

ZERO

± 204 x 100 x 50 mm (± 90 pieces per m², masonry without joints)

















72 Treviso - Architect: Loof & van Stigt Architects, Amsterdam (NL)

TIP

Vandersanden Group also offers profile bricks. These are facing bricks with a special design. For example, curved bricks, bricks with an angle of 135°, bricks with rounded corners, etc. The linear measures of such bricks vary and depend on the specific application.

More about this in the 'Profile Bricks' tab.



TIP

The 'Waal' size makes buildings seem wider. This size emphasises the horizontal aspect of the brick and the building. This is interesting for projects on small building grounds or projects in which this kind of effect enhances the architecture of a building.



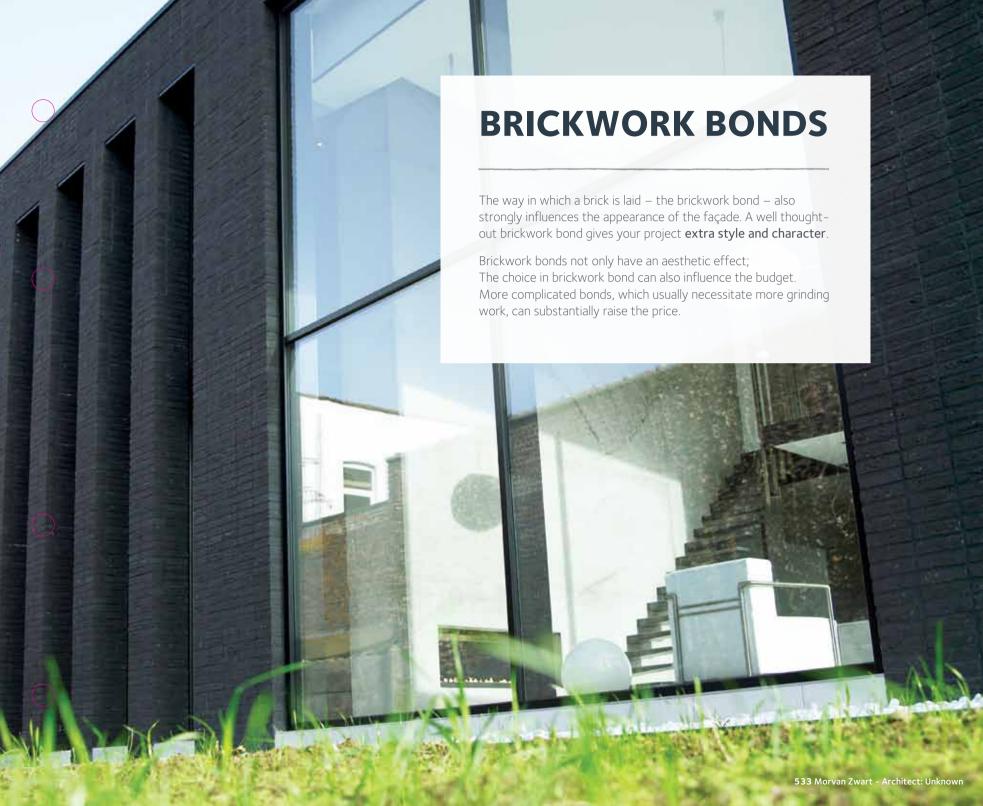
TIP

Every facing brick is also available in the shape of brick slips in the same colour and size. A brick slip is a ± 2 cm thick piece that is cut from a facing brick in the length.

The height and the width of a brick slip is therefore the same as those of an entire facing brick. Brick slips are not laid with mortar but glued against an existing surface. Once they are finished with joint mortar they are indistinguishable from classic masonry.

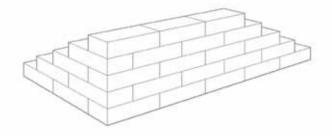
This is a very interesting product for interior application of bricks. Gluing brick slips on wall surfaces is a more logical working method when it comes to interior design, because the thickness of the coating is only 2 cm. Thus the available interior space is not unnecessarily reduced.

More about this in the 'Brick Slips' tab.

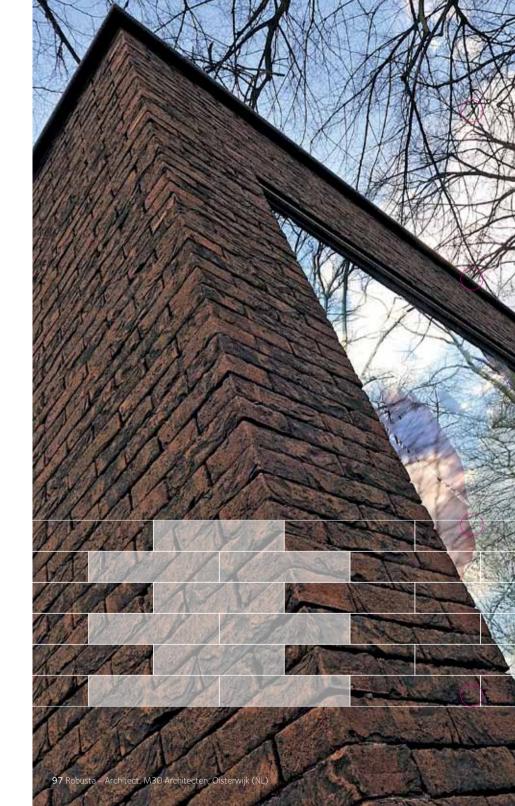


Stretcher bond

This is the most common and used brickwork method. The vertical joints are staggered each time by half a brick. There is hardly any loss of material because the bricks do not have to be grinded to size.

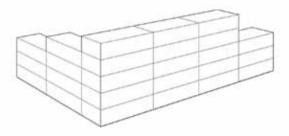






Stack bond (or stacked bond)

This bond visually emphasises the vertical aspect of the masonry. The facing bricks are laid one on top of the other so that not only the horizontal edge joints, but also the vertical head joints are continuous.

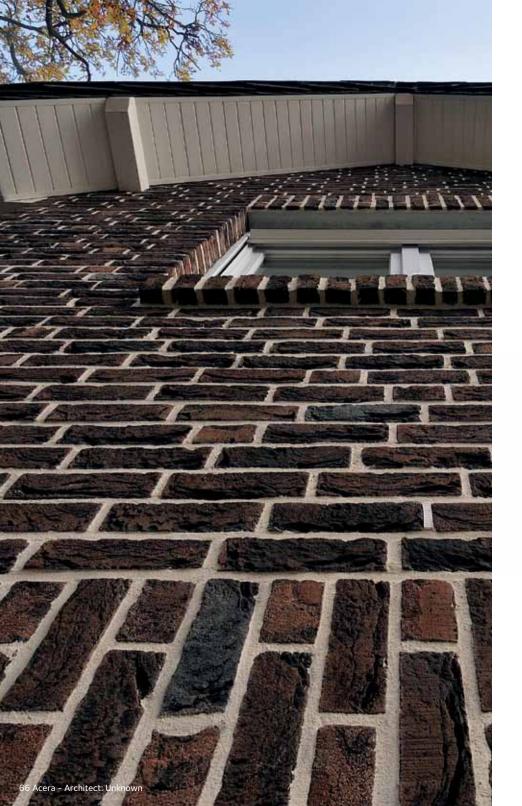


This can be done with stretchers as well as with headers. However, the latter will up the price due to all the grinding and cutting work.



43 Argentis - Architect: Claus en Kaan Architecten , Amsterdam (NL)

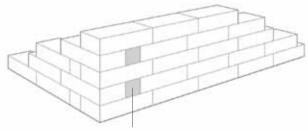




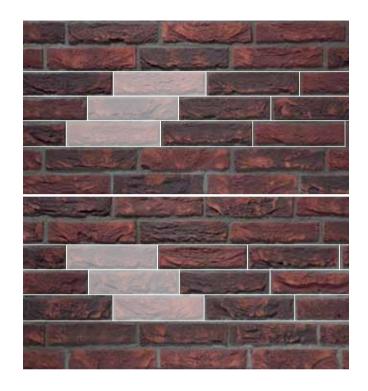
Raking stretcher bond

A variation on the stretcher bond. The vertical joints are staggered each time by a quarter or three-quarters of the brick's length. Aesthetically this gives a descending movement to the bond.

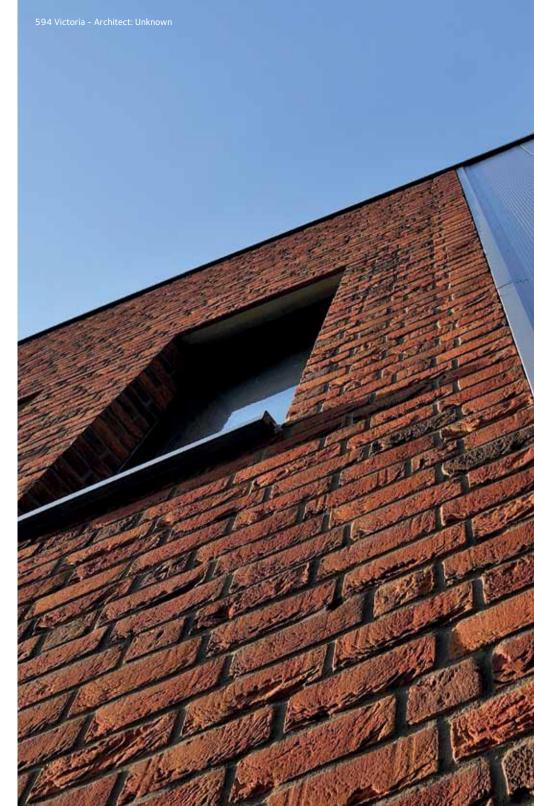
This can even be carried out to the left and to the right. At a certain height you change the direction in order to break the long bonds of slanting bricks. This way you create a zigzag effect.



By laying a quarter-closer, the direction of the 'toothing' changes, descending to the left or to the right. In this example, a quarter-closer has been used every two courses, resulting in 'racking' (a standing tooth).

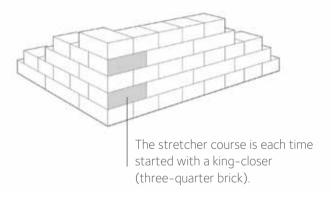






English bond

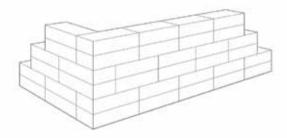
This bond maintains a pattern of headers and stretchers. A course of stretchers alternates with a course of headers.





Block bond

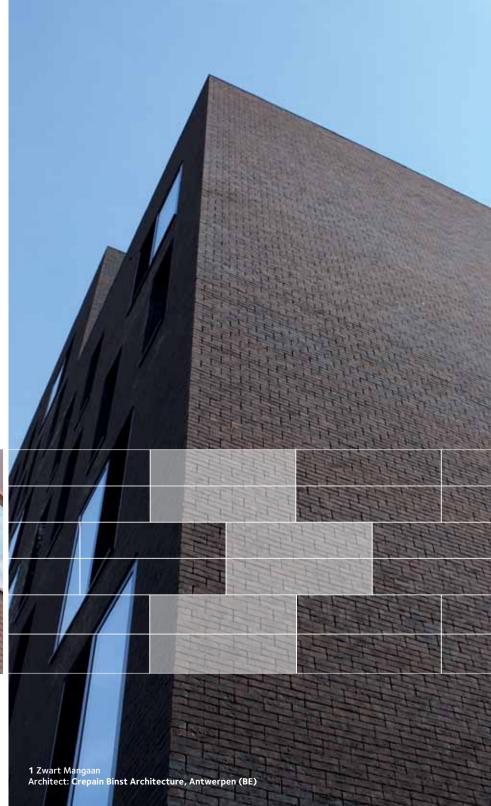
A combination of the stretcher and stack bond. Two courses are laid in stack bond and the next two courses are laid while staggering by half a brick.







You can be very creative with brickwork bonds. Here the block bond has 4 courses, but it alternates with a horizontal-vertical stack bond.



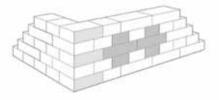
English cross bond

As the name hints at, crosses are visible in this pattern. They are formed by alternating a course of headers with a course of stretchers, just like in English bond.

There are 2 variations:

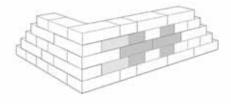
English cross bond with king-closer:

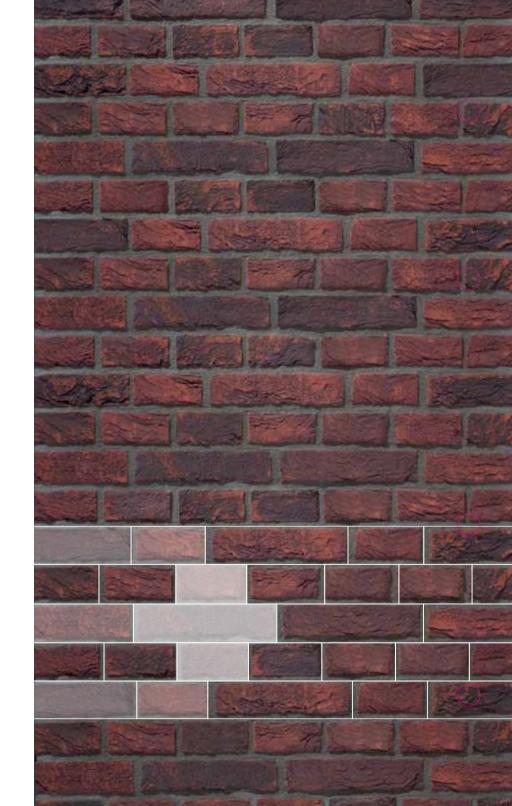
A king-closer is laid at the end of the stretcher course. Every 4 courses a header is laid next to the king-closer. This way the bricks are staggered by half a brick.



English cross bond with queen closer:

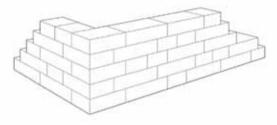
The king-closer is NOT placed in the stretcher course but in the header course. Furthermore, it is not laid all the way at the end, but next to the last header of the course. Every 4 courses a header is laid in the stretcher course so that the bricks are staggered by half a brick.

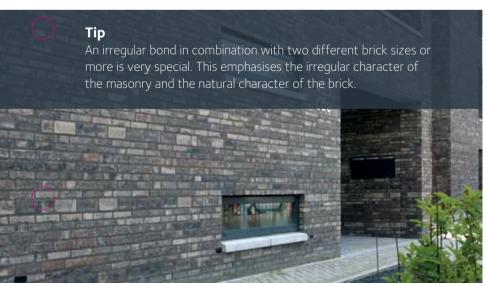


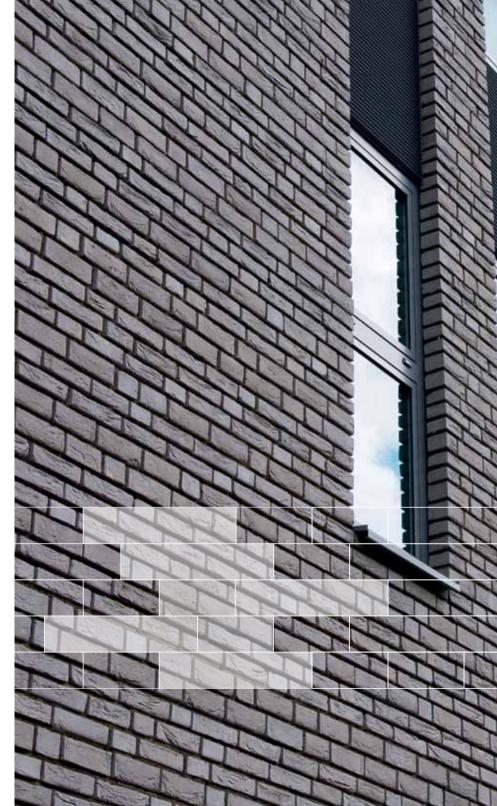


Irregular bond

As the name hints at, there is no pattern in this bond. Various lengths of bricks are used, but never smaller than a quarter brick. There is only one rule: The vertical head joints may not continue into the next brickwork course, but must stagger each time. This brickwork bond is recommended/proper bond when laying or gluing facing bricks that are characterised by a low dimensional stability. When using recycled bricks you sometimes have no other choice.



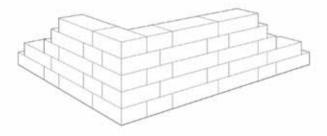




Monk bond

An elegant and often used bond with a simpler pattern. All the courses consist consecutively of a header and two stretchers. As a result, the headers are aligned every second course, resulting in the formation of a 'procession'.

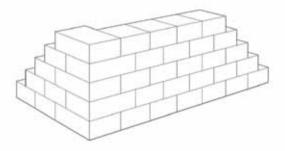
Compared to the English bond and the English cross bond, the number of headers is limited and therefore the price is lower.





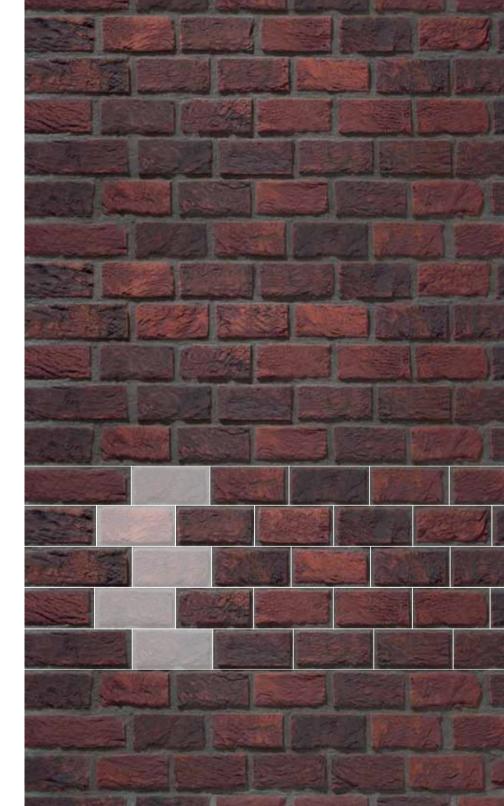
Header bond

All the courses consist only of headers that are staggered by half a brick. The header bond is sometimes combined with the regular stretcher bond in order to create a curve in the wall in an easier way, for example.



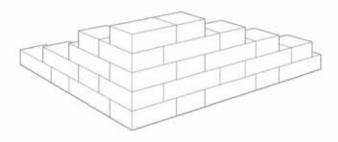
Tip

For such applications, special moulded bricks can be ordered in order to maintain the stretcher bond. However, the price of these bricks is higher. Change the direction with each course.



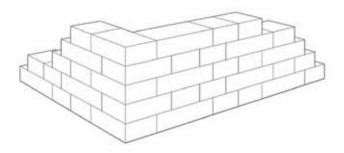
Flemish bond

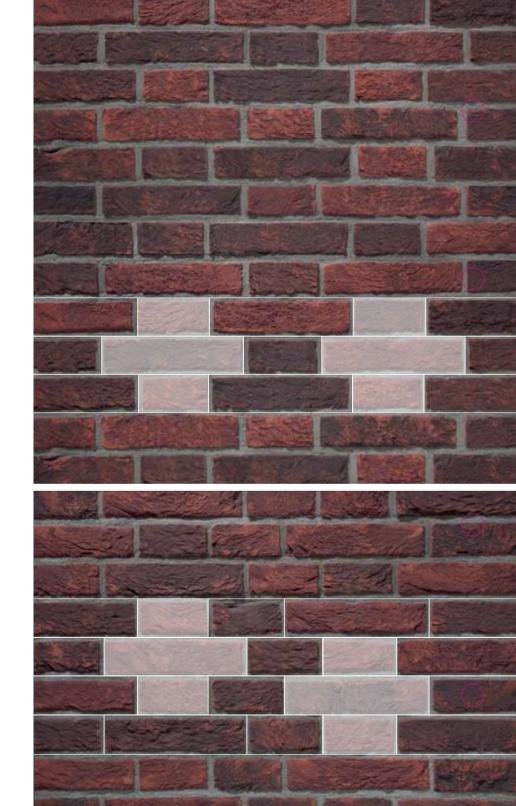
This bond resembles the monk bond. It differs in that all courses consist consecutively of a header and a stretcher. An often used bond that includes a little more cutting work.



French bond

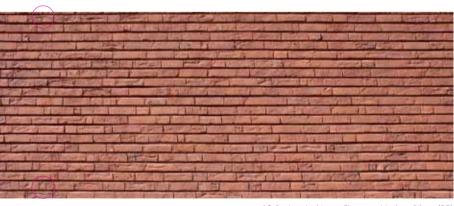
Every course alternately consists of a stretcher and two headers.





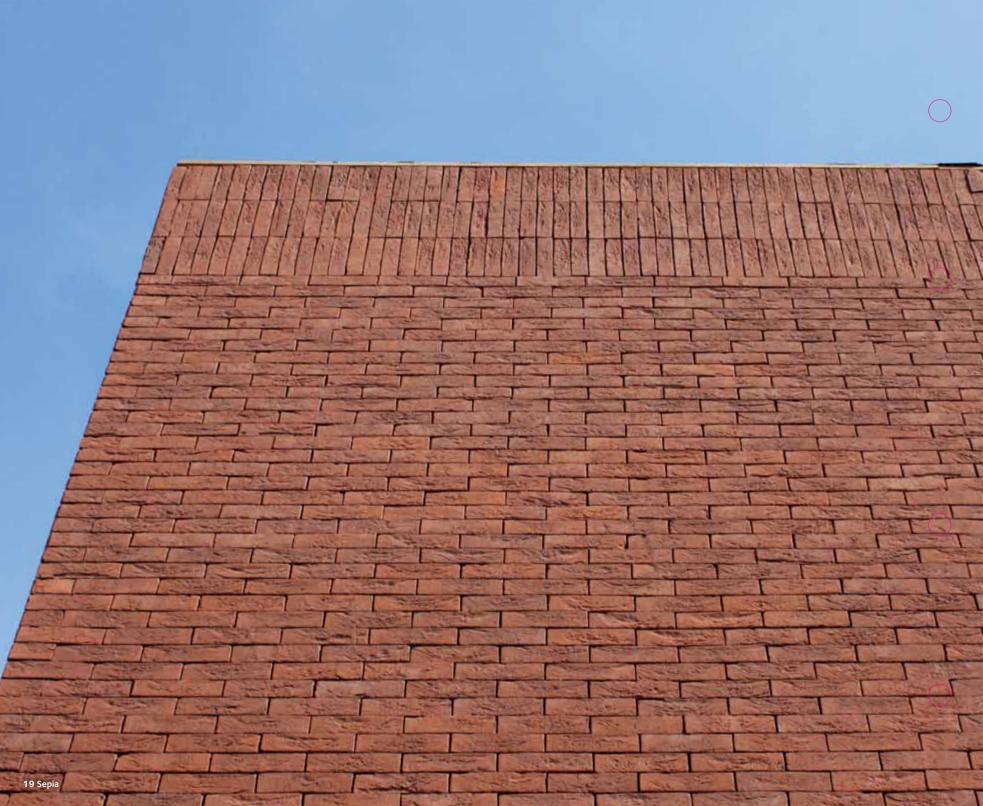
No vertical head joints

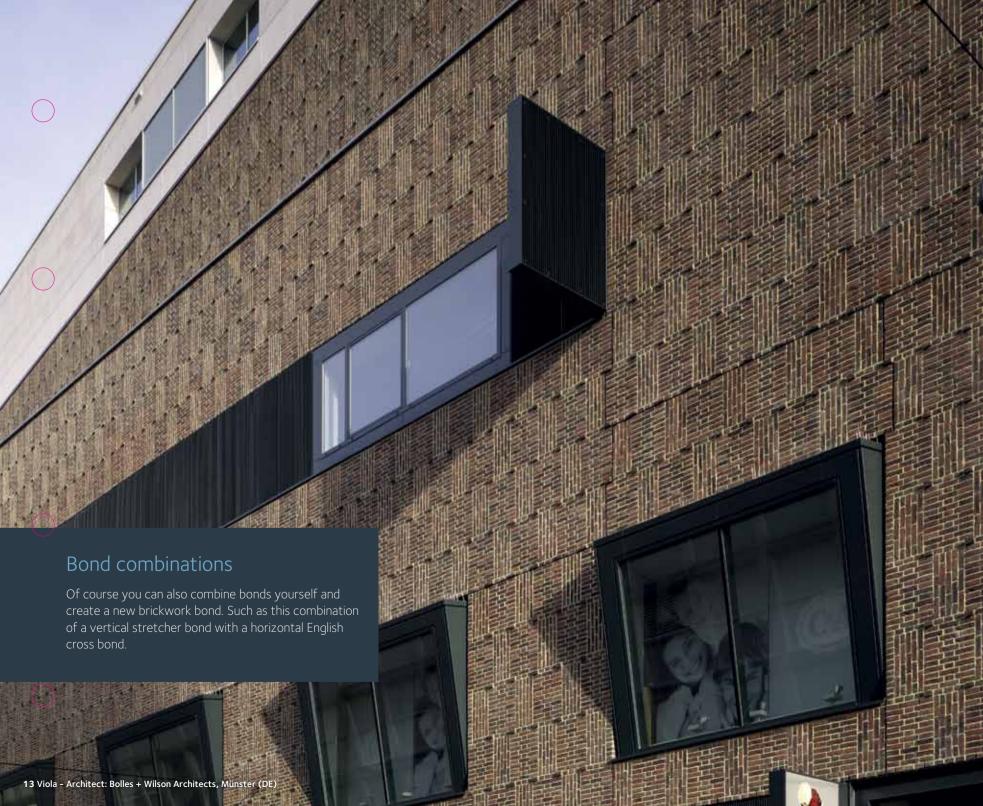
By laying the facing bricks against each other the head joints disappear and only the edge joint remains. This emphasises the horizontal play with lines of the masonry even more. It is an elegant way of visually lengthening a building.

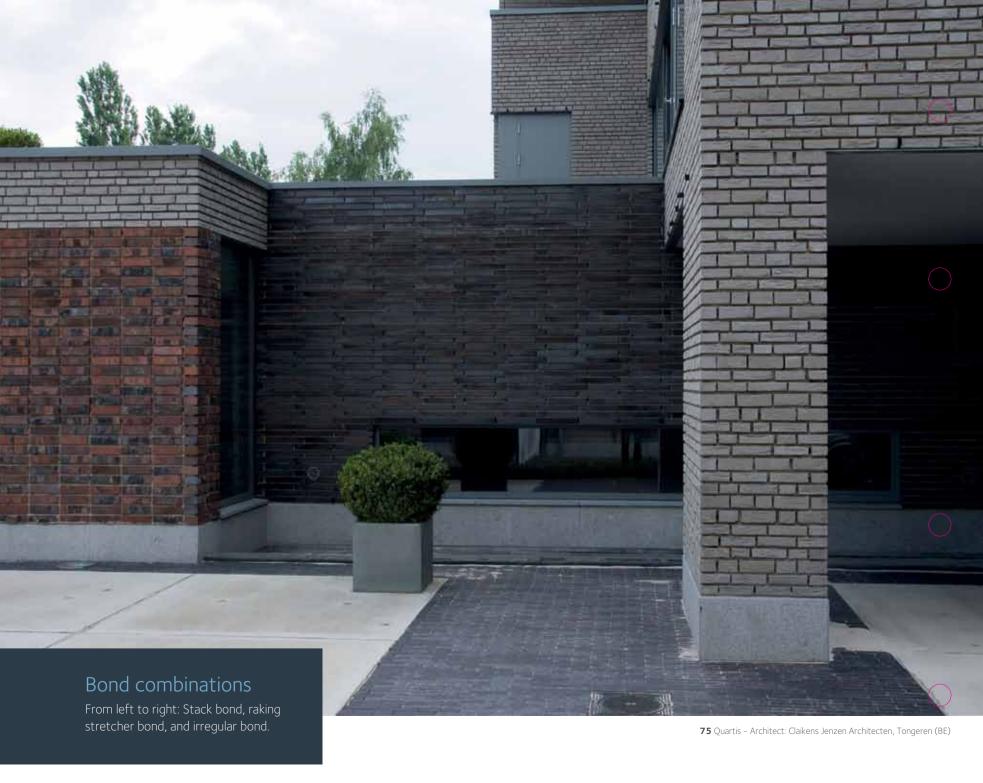


19 Sepia - Architect: Cleuren - Merken, Bilzen (BE)









DECORATIVE BONDS

There are also brickwork bonds that function as local decoration. They are not applied to the entire project, but rather create a special effect in a specific part of the façade of the building. They offer quite some creative possibilities.

Some well-known examples:

Herringbone bond at a 45 degrees angle

The facing bricks are laid diagonally and turned each time. This is not easy to do in façade masonry. This pattern is often used when paving with paving bricks.

Herringbone bond

The layout of this bond looks like a herringbone. However, the bricks are not laid diagonally but horizontally and vertically.

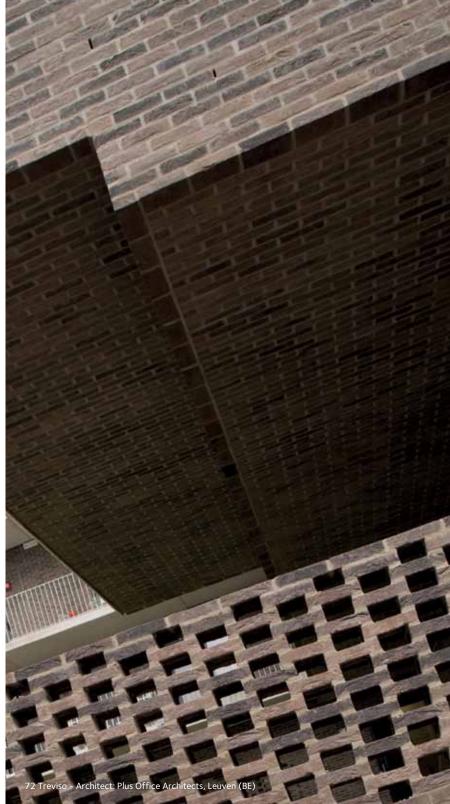
Brasilian bond

The facing bricks are laid in such a way that empty spaces are created. Result: a viewing hole effect. A surprising and elegant solution to partially show an underlying construction or to let more light in.











WHAT IS A JOINT?

Masonry mortar is used in classic masonry. Open joints of about 10 to 15 mm wide are formed between the bricks. At the end of the working day about 15 to 20 mm of this masonry mortar is scraped out, which creates the necessary space for filling up the façade with a joint mortar.

A joint mortar has 2 important purposes:

- A practical purpose: the open joints are filled correctly and efficiently.
- An aesthetical purpose: 10 to 20% of the visible wall surface consists of the joints and therefore the joints greatly influence the appearance of the finished façade.

A joint mortar mainly consists of cement, sand, and water. The composition of the joint mortar varies depending on the colour of the joint mortar. Sometimes lime and mineral colouring agents are added.





86 Boston (red joint)
04 Platina (grey joint)



Joint techniques

The actual jointing can vary depending on the region and the building culture. There is no golden rule.

- Difference in timing

In Belgium, usually the rough structure is finished first while jointing is done in a later phase. In the Netherlands, jointing is done from the bottom upwards so that laying bricks and jointing are practically done simultaneously. Every system has its advantages and disadvantages with regard to planning, moisture effect, consistency of the joint colour, speed, scaffolds, etc.

- Difference in material

You can use a jointer for jointing. A long jointer is used for the horizontal joints and a shorter jointer for the header joints. Jointing can also be done using the spraying technique.

Some tips for a beautiful and high-quality result.

- Always use clean water for making the joint mortar.
- In case of warm and dry weather conditions make sure that the fresh jointing does not dry up to fast. Bad bonding between the facing brick and the joint mortar can cause the joint mortar to fall out or pulverise in time. Avoid this by misting the façade with clean water during the first few nights after jointing. This way the joint mortar can stiffen naturally.
- According to the Belgian standard we advise you to create a joint of which the depth isn't smaller than the height, with a minimum of 10mm.



JOINT COLOURS

When you choose to carry out a classic masonry instead of gluing the bricks, then the joint very much determines the end result.

Depending on the brick size that is used, 10 to 20% of the façade can consist of joints. Determining the colour of the joint is a choice that may take up quite some time. After all, the joint makes or breaks the façade.

Tip

Always try various samples on a façade before using it for the entire project. The surrounding, architecture, and personal taste can very much influence your choice.



Beware!

If the joint mortar is made at the construction site, make sure that it is ALWAYS done in the exact same manner. A difference in the colour of the joint can totally disrupt the appearance of the façade. It may even give the impression that different coloured facing bricks

An overview of the most used joint colours and their effect on the façade.



Grey is the most common joint colour. It is the most neutral colour. From close up there is sufficient contrast with the colour of the brick. From further away the wall and joint seem to be one whole.



Black joints are being increasingly more used. They give a warmer effect with certain brick colours.



A white joint emphasises the play with lines of the joint and simultaneously refreshes and intensifies the colour of the brick.



Colouring on colouring joints create even surfaces. The contrast between the brick and the joint is reduced to a minimum



TYPES OF JOINTS

The form of the joint also influences the appearance of a façade. Of course the height of the joint plays an important role, but the depth is also important. The deeper the joint, the more it will end up in the background. This creates a shadow play between the joint and the facing brick,

which especially emphasises the colour of the brick.

There are various standard types of joints. The price depends of course on the labour intensiveness.















FLUSH JOINT

Working method

The mortar is generously applied and levelled in a smooth way so that the mortar is flush to the brickwork.

Effect

This form of pointing is often used with colouring on colouring joint mortars. The even surface that is desired is emphasised this way.



FLUSH BRUSHED JOINT

Working method

The mortar is generously applied but not levelled smoothly. Brushing the excess mortar creates a more rough joint with more texture.

Effect

Here also this type of pointing creates an even surface when using colouring on colouring mortar. In addition, the brushed effect creates façade with more character.



WEATHER STRUCK JOINT

Working method

The mortar is applied partially recessed in an angle of 45° .

Effect

This creates a shadow effect. The horizontal lines of the facade are emphasised.



RECESSED JOINT

Working method

This is an extra raked joint. The mortar is applied 2 to 5 mm deeper than the visible surface of the façade.

Effect

The emphasis is laid on the horizontal aspect of the façade, especially in combination with full vertical head joints or even no vertical head joints at all.



RAKED JOINT

This is also a very common type of pointing.

Working method

The mortar is pressed a bit inwards so that it is approximately 2 mm recessed compared to the facing brick.

Effect

This creates more shadow between the joint and the brick and gives a very well-cared-for appearance. Can be done smooth or brushed. This type of joint especially creates the desired effect when working with archaic Nostalqia bricks.



CONVEX JOINT

This is a type of joint that is less common because it requires more time and expertise.

Working method

The mortar is generously applied but not levelled smoothly. Brushing the excess mortar creates a more rough joint with more texture.

Effect

Here also this type of pointing creates an even surface when using colouring on colouring mortar. In addition, the brushed effect creates façade with more character.

TYPES OF JOINTS

What is a doorstrijk joint?

This type of pointing is not much related to the aesthetic appearance of the façade, but the manner of bricklaying. Doorstrijk mortar is a mortar that is pushed up to the edge of the brick and then pressed with a jointer. In other words, a 2-in-1 mortar.

The point of departure: mortar is the weak link of the façade and it is therefore best kept out.

The advantage of this is the fact that jointing is no longer necessary after that. You therefore gain working time and efficiency. On the other hand, doorstrijk mortar is more expensive. Here you also have a wide choice of colours.



81 Ligure

Cementation effect

By generously applying the mortar and after that brushing it roughly over the entire façade, you create a cementation effect.







NO JOINTS

When you choose the purely brick effect the joint is a disrupting factor. Increasingly more contractors choose to create a façade without joints.

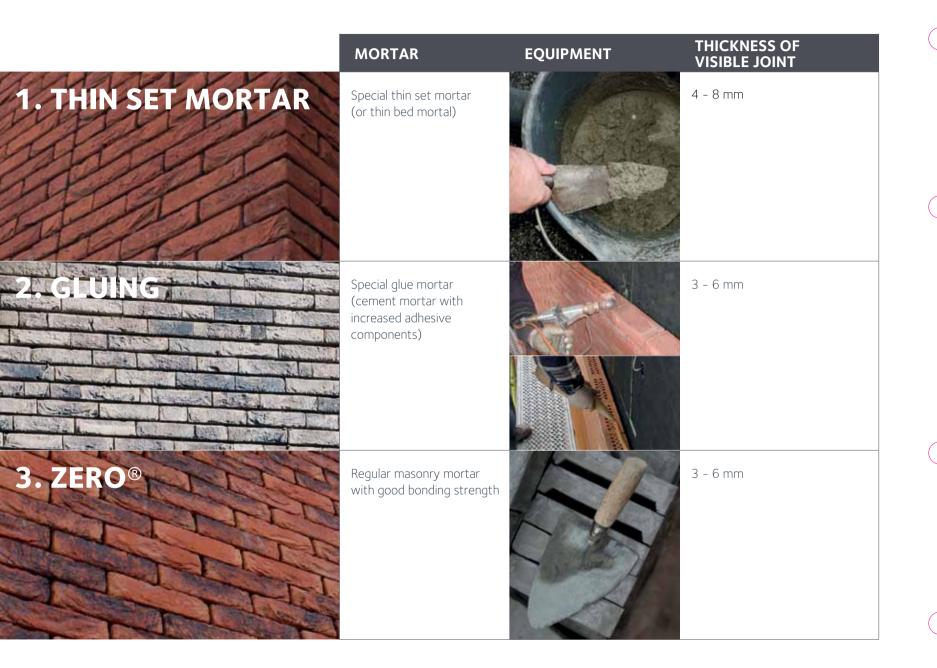
There are **3 known methods** for creating a masonry without joints:

- 1. Bricklaying with thin set mortar
- 2. Gluing together
- 3. Traditional masonry with ZERO®

We are happy to explain these 3 methods in detail to you.

Beware!

Each method generates additional costs compared to classic masonry. More facing bricks are needed per square meter of masonry. And in all cases more care and expertise is expected from the contractor. However, you do get rid of the costs of jointing.



1. BRICKLAYING WITH THIN SET MORTAR

Thin set mortar, a.k.a. thin bed mortar, is a **cement mortar** to which **glue has been added**. This increases the adhesive power of the mortar, which is why the thickness of the joint can be reduced to **4 - 8 mm**. The mortar is applied in a raked manner and is not jointed.

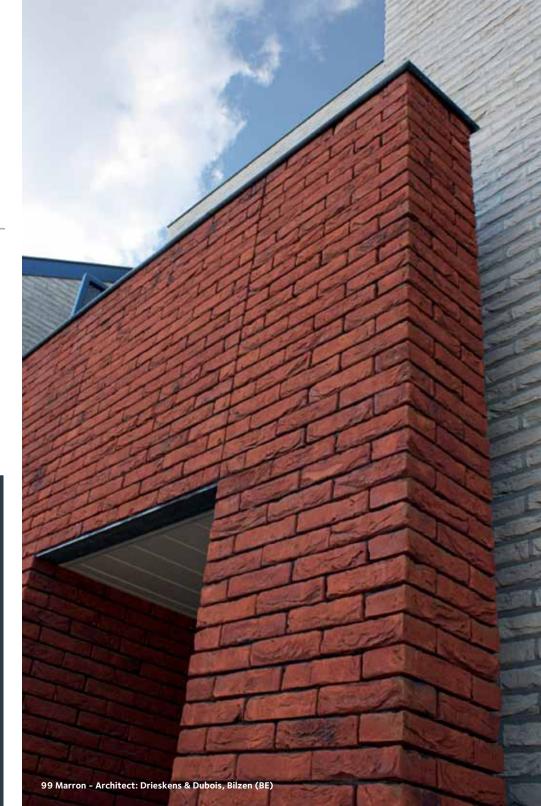
Advantage

This technique is interesting to use with facing bricks with an irregular design. After all, the mason has enough play to take care of the irregular shapes.

The advantage of thin set mortar is that it is not much more expensive than **regular cement mortar** and that it can be handled with a **trowel**.

Disadvantage

The disadvantage is mostly aesthetic. Though the joint thickness is reduced, it is nevertheless present. Especially when the joint thickness leans towards 8 mm, is seems sometimes that there is a need for jointing.







2. GLUING

Here a **glue mortar is used**. The term is somewhat misleading, because this does concern a cement mortar. More lime is added to this mortar, which increases the strength of the mortar considerably. The joint thickness is therefore only **3 to 6 mm**, depending on the dimensional stability of the facing brick.

Applying the glue mortar with the classic trowel is not self-evident. It sticks too much for this.

The contractor can choose between 2 working methods:



1. With a gluing machine:

1. The glue is applied to the bricks in the form of a sausage by means of a pump and a pistol A second person lays the next course of bricks, etc. In good conditions this is a very proper and efficient way of working. In case of long breaks (rain, other assignments, etc.) it is necessary to refine the left over mortar in the mixer and to fill the mixer with

water. In case of changeable weather this is not always fun and much time is lost. In order to work comfortably you also need more space: the gluing machine takes up a lot of space. This method is often used for bigger projects or when gluing interior blocks.



2. With a spraying sack

2. Like when applying whipped cream to a cake, with this method the glue mortar is poured into a spraying sack. The glue is then applied to the course of bricks in the form of a sausage. The dosing is adjusted to the desired joint thickness by adjusting the nozzle. The bricks are pressed in the glue. This method requires a bit more arm

strength, but saves on the renting costs of a gluing machine. This can be a determining factor in small or medium-sized projects.



3. TRADITIONAL MASONRY WITH ZERO®

ZERO®, an invention of Vandersanden Group, combines modern architecture without joints with the traditional masonry.

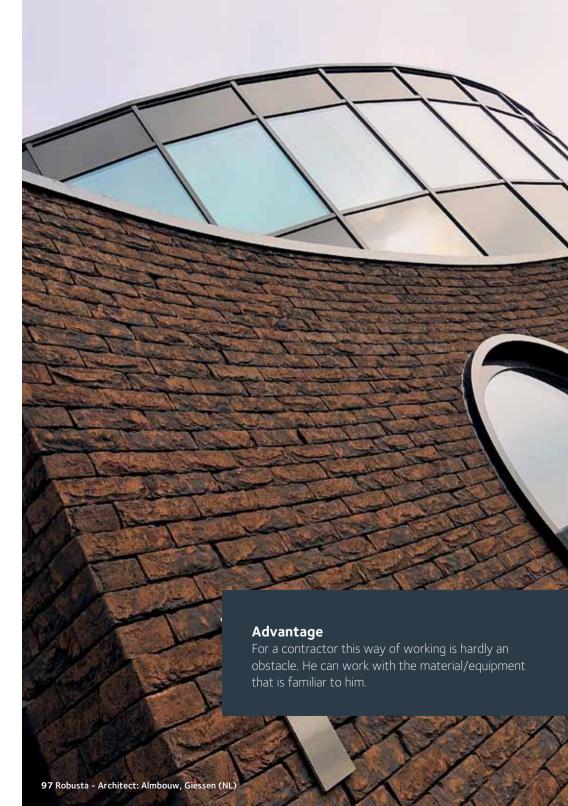
Customers and architects often abandon their initial idea of masonry construction without joints because of the higher price or the difficulty to find a contractor who glues for a reasonable price.

ZERO® is an ingenious solution due to its simplicity In principle it is nothing more than a specific size facing brick with which you work in the classic manner with mortar and a trowel. And yet, the result is a façade with thin joints of 3 to 6 mm.

The difference between ZERO® and classic masonry is in the laying of the brick. The brick is **no longer pressed vertically**, but tilted.



ZERO® has a special opening on the upper side of the brick. As a result the mortar bed is lower. It will sink even deeper when the next course of bricks is laid. On the facing side this creates a thinner joint. In addition, we also paid attention to a good proportion between the length and width of the brick so that it is perfect for working with a stretcher bond. This way the work proceeds quickly.







13 Viola - Architect: Unknown

Bricks are a natural material. A characteristic of natural materials is that they can be perfectly combined with other materials.

Each material has its own specific characteristics. Rough or smooth. Warm or cool. Combinations of shapes, textures, colours offer you quite some creative possibilities to give your project a unique look and feeling.

Everything is possible. We are happy to give you a few examples. Bricks combined with wood, plastering, concrete, glass, natural stone, zinc, metal, etc. And of course another commonly used combination: bricks combined with another type of brick.



04 Platina & 01 Zwart Mangaan - Architect: Drieskens & Dubois, Bilzen (BE)



01 Zwart Mangaan - Architect: Unknown

1. Bricks & concrete



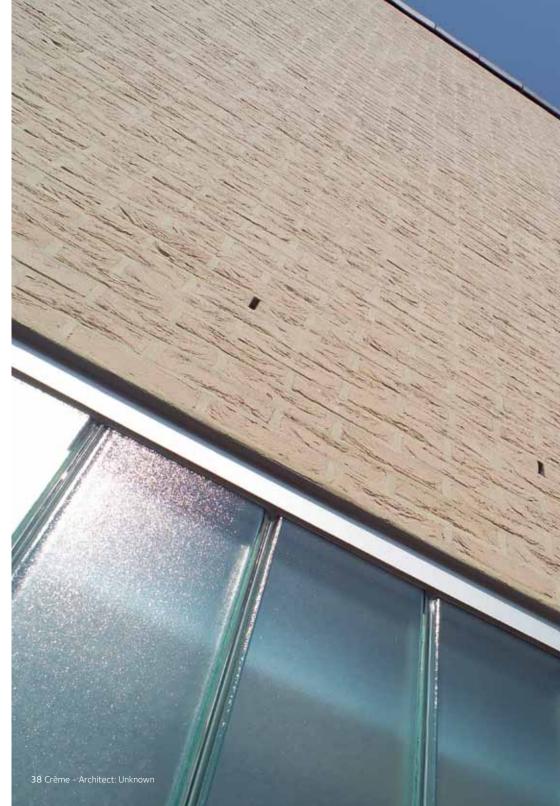
72 Treviso - Architect: Plus Office Architects, Leuven (BE)



2. Bricks & glass



97 Robusta - Architect: M30 Architecten, Oisterwijk (NL)



3. Bricks & wood



71 Cortona - Architect: DFM Architects, Tongeren (BE)



64 Corum - Architect: Sylvain Maurissen, Bilzen (BE)



4. Bricks & plastering



90 Oud Warande - Architect: Unknown



5. Bricks & natural stone



11 Terra Rood - Architect: ESA Architecten Engineers, Sint-Truiden (be)



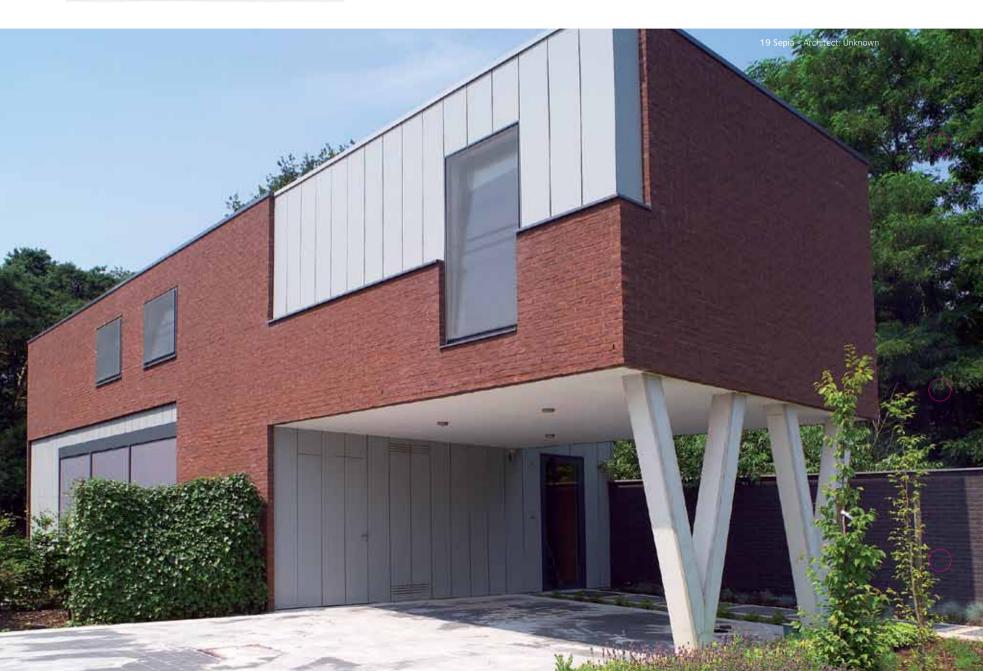
6. Bricks & metal



75 Quartis - Architect: Claikens Jenzen Architecten, Tongeren (BE)



7. Bricks & PVC



8. Bricks & bricks



Architect: De Twee Snoeken, 's Hertogenbosch (NL)





CREATIVE CHALLENGES

Generally, façades are considered to be straight, smooth outer walls. However, this is not necessarily true. You can do much more with bricks...

Corners and curves

Profile bricks are a more elegant solution than cutting to create corners and curves in your brick façades. These bricks differ from the standard rectangular bricks with regard to their shape. That is why they are still manufactured by hand. The stock brick is adjusted in such a way that the corner or rounding in the façade can be constructed with the manufactured brick. This way the brickwork bond that is being used is maintained.

We have various types of profile bricks in standard shapes. Do you need a different shape for your project? Vandersanden Group is happy to find a solution for you.

More about this in the tab profile bricks..

Relief

With recessed or protruding bricks that stick out you create relief in a smooth wall. The effect of shadow gives the façade more depth. For reasons of stability and efficiency, the number of centimetres that bricks cab recede or protrude is limited to just a few centimetres.



586 Saumur - Architect: Architectenbureau Rooijakkers + Tomesen, Amsterdam (NL)



Tip

A recessed course is sometimes jointed using darker mortar in order to extra emphasise the effect of light and shadow.

Ceilings and corbels

Baksteen die doorloopt op het plafond? Bricks that continue onto the ceiling? Or a corbel that flirts with gravity? Even here you can let your creativity go wild. E-Brick is most suitable for realising special masonry constructions that are difficult or impossible to realise with normal masonry. Well-known examples are hanging masonry and corbels.

The mounting of E-Brick insulation plates results in **light** and quickly placed constructions. Furthermore, after completion you will not notice the difference between the parts with complete bricks and the parts with E-Brick. That is because we manufacture the E-Brick panels from strips of real bricks.

More information about this in the 'Profile Bricks' tab.





156 Kripto - Architect: Unicum Arch. bureau, Tongeren (BE)

A challenge? An idea that you would like to realise? Do not hesitate to contact us.

Together with you, our specialists will search for the most beautiful and efficient solution.



19 Sepia - Architect: XYZ-Architecten, Zutendaal (BE)

OUR OFFICES

SPOUWEN

Riemsterweg 300

B-3740 Spouwen (Bilzen) Tel.: +32 (0)89 51 01 40

Fax: +32 (0)89 49 28 45

LANKLAAR

Nijverheidslaan 11

B-3650 Lanklaar (Dilsen)

Tel.: +32 (0)89 79 02 50

Fax: +32 (0)89 75 41 90

HALLUIN

Avenue de Machelen 14

F-59250 Halluin (Menen)

Tel.: +33 (0)320 23 93 00

Fax: +33 (0)320 23 89 63

info@vandersanden.com

www.vandersandengroup.com

HEDIKHUIZEN

Bokhovenseweg 8

NL-5256 TC Hedikhuizen

Tel.: +31 (0)416 36 96 96

Fax: +31 (0)416 36 96 99

SPIJK

Spijksedijk 24

NL-6917 AD Spijk

Tel.: +31 (0)316 56 64 00

Fax: +31 (0)316 56 64 11

