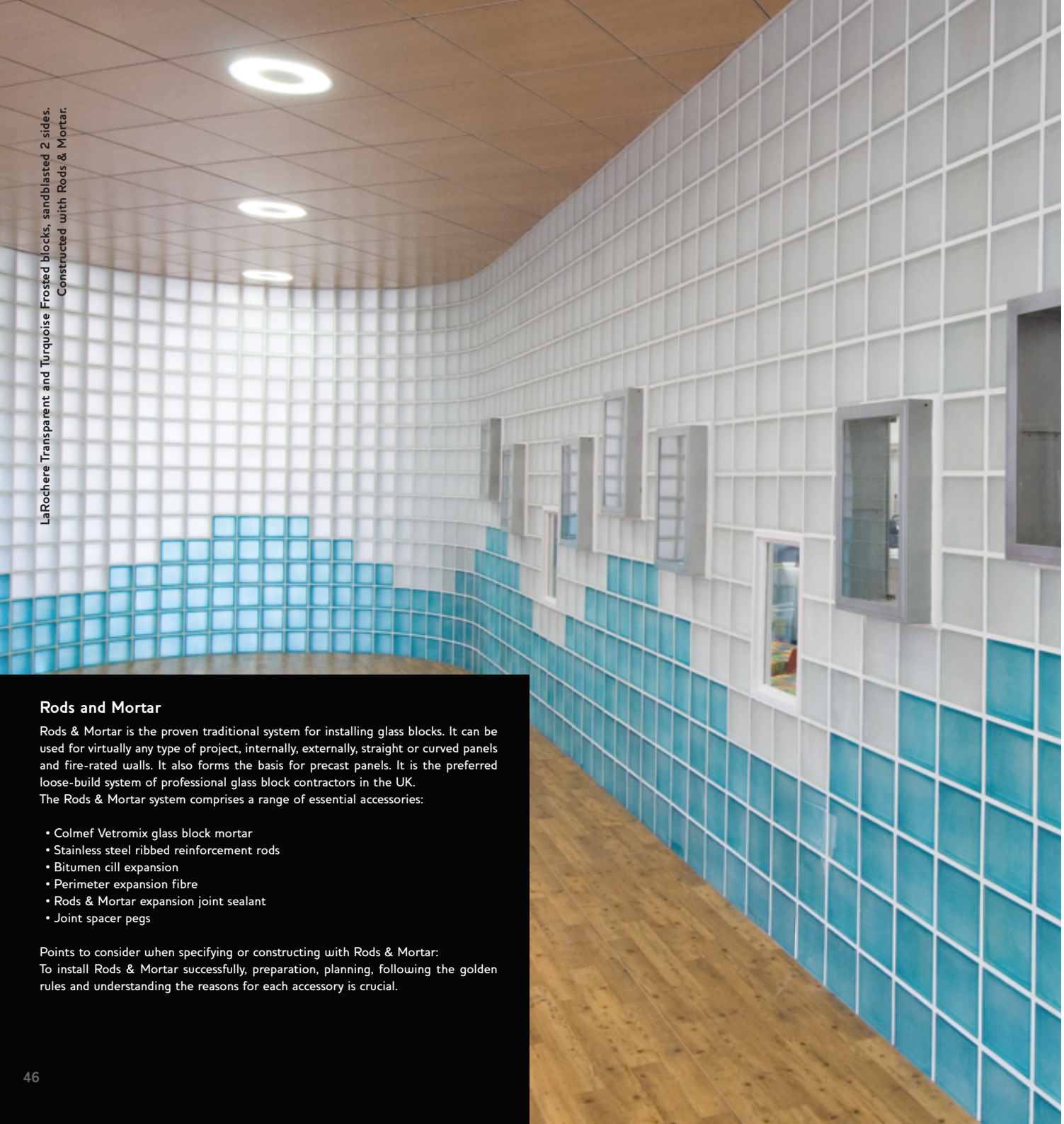

LaRochere Transparent and Turquoise Frosted blocks, sandblasted 2 sides.
Constructed with Rods & Mortar.

Rods and Mortar

Rods & Mortar is the proven traditional system for installing glass blocks. It can be used for virtually any type of project, internally, externally, straight or curved panels and fire-rated walls. It also forms the basis for precast panels. It is the preferred loose-build system of professional glass block contractors in the UK.
The Rods & Mortar system comprises a range of essential accessories:

- Colmef Vetromix glass block mortar
- Stainless steel ribbed reinforcement rods
- Bitumen cill expansion
- Perimeter expansion fibre
- Rods & Mortar expansion joint sealant
- Joint spacer pegs

Points to consider when specifying or constructing with Rods & Mortar:
To install Rods & Mortar successfully, preparation, planning, following the golden rules and understanding the reasons for each accessory is crucial.

The golden rules of building with Rods & Mortar

Glass block walls are self supporting, but not load bearing. In addition to their own weight, they can withstand wind loads, horizontal live loads and impact loads. A lintel provides the head for the panel to be anchored into whilst ensuring no downward pressure is placed on the glass blocks.

Openings must be square and perpendicular and the opening dimensions must be designed to suit glass block modules. Glass blocks cannot be cut like masonry bricks or tiles.

Glass block walls are connected to the surround by reinforcement bars being inserted into pre-drilled holes (or panel anchors). For best integral strength, panels should be installed into a four-sided pre-prepared opening. The opening can be timber, brick, steel, concrete or blockwork.

Between the opening and glass blocks it is essential to incorporate expansion joints to the perimeter to allow the panel to expand and contract freely with temperature change. The foam must not be bridged by mortar (render/plaster etc...) and caulked with Rods & Mortar expansion joint sealer (fire-retardant in fire-rated applications).

Glass blocks should not be installed when the surrounding temperature is 5°C and falling or 30°C and rising.

Using standard glass blocks the maximum panel size without intermediate support or slip joints is 25m², with no dimension exceeding 6m in either direction. For TF30 and TF60 fire blocks, the maximum panel size permissible is 9m² (in line with test specification).

How a mortar joint works

Glass Block Technology mortar is a specially formulated premix bedding and finishing compound, available in one bag to be mixed with water. It is manufactured under factory controlled conditions so all additives are accurately blended and designed for maximum performance of strength, flexibility, water repellence and U-value.

A mortar joint will cure in reaction to air just like normal mortars, so it is important that the joint size is not below 6mm. This guarantees total curing and maximum strength. Vetromix will become solid within hours of construction. Total curing is achieved after 21-28 days.

Glass is impervious unlike brick and concrete, therefore mortar is not absorbed into a glass block. The strength and support of a joint is created by the shape of the mortar profile (oval). The edge or collar of a block is concaved so when two are laid next to each other an oval joint is created.
This oval joint enables the glass block wall to resist impact or applied loads resulting in the panel being stable and self-supporting, but not load-bearing. Stainless steel reinforcement bars are used to restrain the panel to the surrounding aperture, whilst also giving the panel integral support and a wind-loading value.

The minimum recommended joint is 6mm and the most common used is 10mm. However, this is only the distance on show; the centre of the oval joint is always deeper from collar to collar. This area houses the stainless reinforcement bars, which should never be in direct contact with the glass surface.