RADHA KRISHNA BRICKS IND.
Designer Bricks Manufacturer

TECHNICAL INFORMATION 0

APPLICATION & CONSTRUCTION
BRICK SLIPS - FIXING (OTHER THAN PANEL SYSTEMS)

INTRODUCTION

Brick slips can be used to facilitate the achievement of certain architectural details, or to provide a brick veneer to structures of other materials. They are often used internally to provide an attractive, low maintenance finish but this note is mainly concerned with the more rigorous requirements of external application, exposed to the weather. Fixing may be by a combination of mechanical support and adhesive mortars or, in increasing situations, by adhesive alone.

MATERIALS

TYPES OF SLIP

Slips can be made either by wire cutting from an extruded column of clay before firing or by saw cutting from standard bricks. This latter method has the advantage of the ability to vary thickness within reason to suit the application. It is also a practical means of producing slips from hand-made and stock type moulded bricks. Corner units can also be produced and this results in aesthetically effective repairs to damaged bricks in existing buildings as well as claddings to various substrates

TYPES OF ADHESIVE

Although some manufacturers specialise in one type of material whilst others provide a range of types, available adhesives/mortars generally fall into the following categories for fixing to concrete substrates:

1. Sand/Portland cement mortar
   Conventional sand/cement mortar is not recommended for slip fixing. Adequate bond strength will rarely be attained and will be much affected by the suction rate of the particular slip and of the substrate.
2. As above - modified by the addition of Styrene Butadiene Rubber (SBR)
   SBR - modified mortar is available in pre-packaged form, which should reduce the possibility of site mixing errors of the three components. The use of such materials is well documented and established and very high bond strengths are achievable if the correct procedures are followed.
3. Epoxy and polyester resin based systems.
   These are capable of developing bond strengths of the high level usually associated with these materials. They have the advantage of rapid hardening but will normally need support until the initial cure has taken place.
   They tend to be expensive, relatively difficult to work and unsuitable for thick beds. They can also be temperature sensitive and liable to give poor strength if used beyond the optimum period after mixing.
4. Cement based adhesives.
   These are capable of bond strengths nearly as high as epoxy or polyester materials. They are perhaps the most straightforward to use with little scope for error and good initial grab, reducing or eliminating the need for support.

   They also have working characteristics more similar to those of normal mortar.
5. Rubber latex based material.
   Latex based materials are useful for applications where a degree of movement and vibration is anticipated, as they remain flexible when set. Tensile failure loads will tend to be lower than with other adhesives due to the low cohesive strength of the material itself, but this flexibility can be a distinct advantage in certain situations since forces are not passed directly back to the substrate. This type is relatively easy to mix and work and is particularly useful for application internally to timber surfaces.
6. Silicone based adhesives.
   Used with various proprietary brick slip systems. Obviously, the suppliers preferred method of working should be closely followed and the adhesive used be suitable for the application in question.

   The use of pre-assembled panels will often be preferable to individual slip fixing on site although the latter offers greater flexibility. In this case, site pointing will enable a uniform appearance to be achieved, avoiding a stitching effect between panels.

For further information please contact
R.K. House, Opp. Power House, Godhra. 389001. India. | T : +91 2672 260261 / 262854 | M: +91 98250 48755 | +91 98254 22020
E : jagdish.katiya@gmail.com | info@radhakrishnabricks.com | W : www.radhakrishnabricks.com

RADHA KRISHNA BRICKS IND.
Designer Bricks Manufacturer

TECHNICAL INFORMATION

APPLICATION & CONSTRUCTION
BRICK SLIPS - FIXING (OTHER THAN PANEL SYSTEMS)

Many adhesive companies offer technical advice on which product is best for any given application. It is important that their advice is sought. Ibstock Technical Services can supply manufacturers contact details on request.

Regardless of which type of adhesive is chosen, the following points must be observed during fixing: -

1. The general level of workmanship and supervision needs to be of a high standard.
2. The substrate to receive the slips must be clean, dry and free from dust, mould, and oil or, in the case of concrete, loose surface laitance.
3. Nearly all adhesive systems require some form of support until the initial set has taken place. Subsequent courses may be conveniently spaced by fillets of mortar between the slips, or plastic/wooden spacers may be used. Final pointing, after the adhesive has set, should be in normal sand/cement mortar to match the in-situ brickwork but modified mortars are available for use with proprietary gun-applied systems.
4. With most adhesive types, the slips should be 'buttered' with the mix over the whole rear face to avoid any voids in the bed in which water could collect and force off the slips under freezing conditions. Proprietary systems may have different arrangements and be applied by a gunning arrangement to the substrate.
5. The permissible bed thickness will vary with different systems and the manufacturers recommendations must always be followed. If differences of line occur requiring a greater thickness than that recommended, an initial render coat of the adhesive may be required. Specific advice on this matter should be sought from the manufacturers. In general 6mm represents a normal bed thickness with most adhesives, although most can be used at up to 12mm in small areas.
6. Manufacturer's instructions and advice should be strictly followed.

It is most important that allowance be made for both vertical and horizontal movement and that compressible joints are incorporated in the design for this purpose. This is particularly relevant to brickwork infill panels to concrete framed buildings; a compressible joint must be incorporated at the top of each storey- height panel to minimise the tendency for the slip cladding to the floor slab above being squeezed off by a compression buckling effect.

POINTING UP

After adhesion to the substrate pointing can be carried out using the traditional mortar and trowel method or, for larger expanses, a gun injection pointing system will give speedier results.

METAL FIXINGS

Ancon	Brick slip fixings	0114 275 5224	www.ancon.co.uk
Halfen	General metal fixings	0990 316 300	www.halfen.com

POINTING SYSTEMS

Easipoint	Gun injection pointing system	-	www.easipoint.co.uk

METAL FIXINGS

Ibstock Kevington	Brickwork Components™	0844 800 4575	www.ibstock.com
Ibstock Kevington	Fastwall™ brick slips on grp backing - suitable for gable ends etc.	0844 800 4575	www.ibstock.com
Ibstock Kevington	Faststack™ Pre-fabricated Chimneys	0844 800 4575	www.ibstock.com
Ibstock Kevington	Pre-cast components	0161 480 2621	www.ibstock.com
Ibstock Rockwool	Brickshield - Insulated external cladding system	-	www.brickshield.com

For further information please contact
R.K. House, Opp. Power House, Godhra. 389001. India. | T : +91 2672 260261 / 262854 | M: +91 98250 48755 | +91 98254 22020
E : jagdish.katiya@gmail.com | info@radhakrishnabricks.com | W : www.radhakrishnabricks.com