

- For all Agilia™ Screed 10 applications it is recommended to place crack control mesh at all re-entrant angles.
- This is accomplished by using small sections of mesh, 400mm x 300mm, the mesh may be metallic or glass fibre having a 10mm mesh size.
- The mesh shall be placed in contact with the corner and at an angle of 45°.

Ambient conditions

- Agilia™ Screed 10 may only be laid when the air temperature is between 5°C and 30°C.
- The substrate must not be frozen and ideally should be within the above temperature range.
- There must be no risk of freezing for at least four days after placement.

Setting out levels

- For both heated and unheated floors the thickness of the screed from the highest point of the prepared substrate should be no less than 60mm.
- To adequately set out the levels before placing the screed, the highest point of the room should first be found.
- To easily identify the thickness to be laid a series of tripods having a height adjustable indicator should be used.
- A tripod should be placed at the highest point within the room to denote the top of the finished screed and a minimum screed thickness of 60mm.
- Other tripods should be placed at 2m - 3m intervals throughout the floor and the indicators set using a laser levelling device with the first tripod as the datum point.

Slump-flow measurement

- When Agilia™ Screed 10 arrives on site the slump-flow of the material should be 650mm - 750mm when measured using the appropriate equipment.
- If the mix is outside of the target range then advice should be sought from your Lafarge Readymix representative as to the appropriate course of action.

Placement

- Agilia™ Screed 10 can be placed using conventional methods, either by truck chute, conveyor, craned skip or pump.
- The most appropriate method to achieve the highest quality surface finish is by pump, a piston pump is best.
- The hose of the pump should have a maximum diameter of 75mm.

Pump priming

- If the concrete is to be pumped it is essential that the pump is primed beforehand.
- The pipes must be systematically lubricated with a slurry made up of approximately 10kg of pure cement mixed with 10 litres of water.
- The slurry should be fed through the pipes and fully recovered at the other end.

Pumping

- When placing the product the hose should be held approximately 500mm from the substrate.
- The pipe should be moved in a sweeping motion and should not be held stationary above any fixed point. Screed should be poured until the pre-set levels, as denoted by the tripods, have been reached.



Dappling

- When the material has been placed to the desired levels it should be dapped immediately to obtain the best surface finish.
- The T-bar should be moved across the surface of the screed with a tamping motion to generate a wave like ripple across the surface.
- It will be necessary to dapple the screed in two passes with the second pass being perpendicular to the first.
- Agilia™ Screed 10 can be dapped up to two hours from the time of batching as shown on the delivery ticket.

Curing

- Following placement a curing membrane should be sprayed over the surface using a mist sprayer.
- Care should be taken to follow all relevant health and safety procedures when using the curing membrane, including goggles and respiratory equipment.
- It is essential to ensure complete coverage of the surface at the requirement rate.

Following placing

- The room will be suitable for light foot traffic after this period and can be worked on after a period of 24 hours from placing.
- Partitions can be erected after a minimum of seven days from the time of placing.

Each second, Lafarge delivers concrete to one of countless construction projects around the world. Every day, 1,200 technical sales representatives from Lafarge interact with customers at over 6,000 different sites. Innovation is our way of addressing the needs we encounter through these interactions. Our research and development teams are dedicated to innovation, exceeding even the greatest demands of our clients. Our innovative concretes attain new levels of technical performance and anticipate changing industry requirements. Each new product is designed to be more effective in the construction process and help our clients achieve greater success.

Disclaimer - The information contained in this leaflet is based upon knowledge and experience of the materials used in the manufacture of the products. However, since the application of the products is carried out by the customer and is beyond the control of Lafarge Aggregates Limited, Lafarge does not accept any liability or responsibility whatsoever for any loss or damage resulting from the use or application of the products outside the scope of the intended use and precautions set out in this leaflet and any accompanying data sheets.

**Lafarge Aggregates & Concrete UK
Granite House, PO Box 7388
Watermead Business Park, Syston
Leicester, LE7 1WA**

Tel: 0870 336 8258

agilia@lafarge.com

www.lafarge-aggregates.co.uk

Lafarge Aggregates Limited registered in England and Wales 297905



LAFARGE

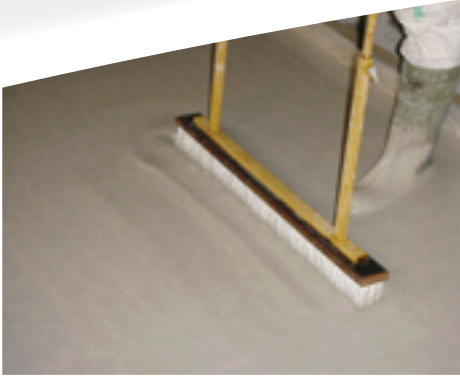


Agilia

CONCRETE IN MOTION



bringing materials to *life*



Agilia™ Screed 10 is highly durable and particularly suitable for high strength screed applications.



Characteristics

- Cement-based screed containing specially selected coarse aggregates.
- Designed to be used exclusively in the interior of buildings for all types of flooring.
- Produces a finish which is more durable than conventional floor screeds.
- Suitable for high strength screed applications as defined in BS 8204.
- Agilia™ Screed 10 combines technical innovation with the advantages associated with the utilisation of cement-based products in wet and dry environments and can be used for unbonded, bonded or floating construction.
- Self-placing properties can assist in achieving high levels of surface tolerance.

Benefits

- **Flexible placing** - A ready-made product, delivered by truck mixer and installed by approved contractors using specialist placing equipment.
- **Ready in 24 hours** - Access to foot traffic in 24 to 36 hours. Partitions can be erected on the surface seven days after placing.
- **Reduced labour** - Quick and easy to install, up to 1,000m²/day with a team of three people.
- **Additional treatment** - Once installed the product is cured with an appropriate curing agent, once set the product is unaffected by wetting.
- **Reduced thickness** - Reduced thickness to that of traditional screed (50mm minimum is recommended). Joints and adequate reinforcement are required to achieve optimum performance.
- **Product compatibility** - Compatible with all flooring products that can be used with sand/ cement screeds.
- **Floor finishing** - Possible to bond most floor covering materials.

Thickness

Unbonded over a solid base	=	50mm
Bonded over a solid base	=	40mm
Floating over thermal or sound insulation	=	60mm
Cover over conduits or heating pipes	=	50mm
Maximum thickness	=	N/A



SPECIFICATION

Appearance = Grey or grey-white, uniform dense surface

Maintenance of fluidity = two hours

Compressive strength at 28 days = 35N/mm

Flexural strength at 28 days = 4-6N/mm²

Density = 2,300-2,400kg/m³

Thermal expansion = 0.012mm/m[°]K

Thermal conductivity = 1.4W/m[°]K

Fire rating = Non-combustible

Drying time at 20[°]c, 60% RH as per conventional screed

Minimum nominal thickness = 50mm



Installation

Intended Usage

- Agilia™ Screed 10 is a cement based, screed containing specially selected coarse aggregates.
- Designed for use in all types of unbonded or floating construction, it can be used to great advantage in both new build and renovation work.
- All residential and commercial floors carrying pedestrian traffic that lie within BS 8204-1: 1999 classification reference are suitable, particularly those in category A.

Substrate Types

- Agilia™ Screed 10 can be used in situations where the substrate is any of the following:
 - > concrete slab
 - > pre-cast concrete floor
 - > hardcore/ stone
 - > polystyrene
 - > timber or timber based panel supports

Timber, chipboard or similar substrates

- Agilia™ Screed 10 is non-adherent and ensures that the timber structure receives adequate ventilation via the underside of the floor once the topping has been laid.

Bond to substrate

- The screed is laid unbonded to the substrate.
- A polythene membrane is required.
- Under floor heating and/ or cooling pipes and embedded low temperature electric-heating elements can be used.
- The screed can also be laid above cellular plastic thermal and/ or acoustic insulation.
- The maximum compressibility of the insulation should be no more than 6mm, however if the substrate is compressible a reinforcing mesh will be required.

Intended coatings

- It is important that the intended coating of the screed be known prior to application.
- Carpet and plastic coverings, removable heavyweight slabs, sealed or bonded tiling, bonded parquet and cast resin flooring are all suitable.
- Where tiles are to be laid, the moisture content of the substrate should be no more than 3% when measured using a drilled sample and Speedy Moisture Meter.
- If the surface is to be painted the compatibility of the paint with the curing membrane used must be assessed.

Flatness tolerance

- The overall substrate should not vary more than 7mm under a 2m straight edge.

Substrate preparation

- The substrate should be scraped clean of any materials such as mortar that affect the overall flatness of the floor.
- All loose material must be swept up and removed.



Perimeter isolation

- A compressible strip with a minimum thickness of 5mm and maximum of 15mm should be fixed around the walls.
- The isolation strip is required to be fixed around vertical features such as columns and pipe ducts; particular care must be taken at re-entrant angles such as doorways, bays and alcoves.
- It is necessary to ensure that the perimeter isolation is placed at right angles into all corners of the room.
- On exterior angles it may be necessary to double up the isolation to ensure that the minimum thickness is maintained around the angle.
- The most suitable material for this is a self adhesive ethafoam strip; polystyrene or fibre-board must not be used.

Substrate preparation

- A polythene membrane of minimum thickness of 150 µm and maximum thickness of 350 µm is required to be laid onto the substrate.
- Agilia™ Screed 10 is highly fluid and this requires the membrane to be substantially watertight to prevent loss of material.
- Around the perimeter of the room the edges of the polythene membrane should extend well above the intended level of the topping.
- A thicker membrane of 500µm - 1000µm can be used if required, however adequate preparation is vital as the 'tenting' of the polythene will become an issue.

Under-floor heating

- Where under floor heating is used and incorporates a proprietary system for pipe location/ insulation it may not always be necessary to use a polythene membrane as the system may be sufficiently watertight.
- It is necessary to ensure that when water is the heating medium, the system has been tested for leaks and the pipes are under pressure before laying the screed, to ensure they are not compressed.
- If there is any doubt please seek advice from your local Lafarge representative.

Bay sizes

Unheated screeds – the joints should be cut at 40 x depth of the slab, in mm e.g. at 75mm thick, 40 x 75 = 3000mm = 3m. Cut at 3m x 3m.

Heated Screeds – as with unheated screeds

Bays should be set out in accordance with normal concrete practice.

Crack induction

- In order to induce cracks in the material it will be necessary to saw cut the material to a third of its depth the following day.
- The saw cuts should occur in accordance with the bay sizes as indicated above.
- Alternatively crack inducing material can be placed at the desired intervals in the floor prior to placement of the screed.

Crack prevention or reduction

- When the screed is laid over insulation or under-floor heating, a metal reinforcing mesh must be used.
- This reinforcement is required to prevent differential movement in the event of a crack developing through thermal cycling.
- The mesh shall be 100mm² with a wire thickness of 2mm to 2.5mm.
- The mesh should be laid flat and where mesh from a roll is used it must be fixed to the substrate to prevent it from coming to the surface of the screed.
- When more than one sheet is necessary the edges should overlap by at least 200mm.
- Where the insulating material used is less than 5mm thick the use of mesh will not be mandatory.

