Installation Guide

As market leaders in the UK and across Europe Gyvlon has over 20 years experience in producing flowing, synthetic anhydrite screeds.

Gyvlon floor screeds are available via a national network of major concrete producers and mix mobile plants who also promote and support Gyvlon Screeds via their own commercial and technical support functions providing advice on application and use.

A list of current stockists is available on www.anhydritec.co.uk. This guide has been developed to aid in the installation of Gyvlon screed in a wide range of applications and systems.

GYVLON SCREED IS IDEAL FOR

- Sub floor levelling in both commercial and domestic buildings.
- Providing a smooth flat surface for the application of all types of floor coverings.

Gyvlon screed, specifically Thermio+, offers complete versatility of use with both thermal and acoustic insulation, and enhances the performance of most under-floor heating systems due to its thinner section.

RECOMMENDED MINIMUM CONSTRUCTION THICKNESS

APPLICATION	MINIMUM DEPTH
• Fully Bonded	>12mm Excelio
• Fully Bonded	> 25mm
• In contact with the substrate / Unbonded	30mm
• In contact with the substrate / Unbonded	>25mm Excelio
• Floating Commercial	40mm
• Floating Domestic	35mm
• Cover to conduits / underfloor heating pipes	25mm
• Cover over conduits / Thermio+	20mm

ANHYDRITEC
Tel. 01925 428780
E. sales@anhydritec.com
221, Europa Boulevard,
Warrington WA5 7TN

ANHYDRITEC
Minersa Group

Installation Guide

Floating on Extruded Polyurethane or Similar Impact

- Ensure insulation lays flat on base (Where necessary lay a grout or screed to remove high points and ensure boards lay flat).
- Lay insulation on base lapping joints a minimum of 100mm, tape all joints. Alternatively lay insulation with butt joints and overlay with polythene.
- Fix 8mm expansion strip with polythene skirt to the perimeter walls and any upstands.
- Lay separating membrane in accordance with manufacturer's recommendations ensuring it lies flat and is free from folds.

Underfloor Heating

- Ensure insulation lays flat on base (Where necessary lay a grout or screed to remove high points and ensure boards lay flat).
- Lay a suitable DPM layer overlapping joints a minimum of 100mm ensuring all joints are fully taped.
- Fix 8mm expansion strip to the perimeter walls and any upstands- Note: The expansion strip may be formed of a proprietary strip of compressible material with a polythene skirt.
- Lay heating system insulation boards in accordance with manufacturers' recommendations lapping and taping joints as required.
- Where appropriate lay a separating membrane over the insulation in accordance with manufacturers recommendations ensuring it lies flat and is free from folds.
- Securely fix down underfloor heating pipes/cables to prevent flotation

Note: If using warm water systems pressurize the pipe work prior to application of the screed to check for leaks.

SETTING LEVELS

Screed levels can be set by laser, stand/tripods or in small rooms directly from datums.

Using a laser level

Placing Screed Gyvlon

Levelling with tripods

ANHYDRITEC
Tel. 01925 428780
E. sales@anhydritec.com
221, Europa Boulevard,
Warrington WA5 7TN

ANHYDRITEC
Minersa Group

Installation Guide

ACCEPTANCE TESTING: FLOW

- The screed mortar is tested for flow on arrival by the applicator. The flow should be between 230mm and 270mm, Thermio+ maxmium 230 -250mm, Excelio 270-290mm
- Flow can be adjusted by addition of water within pre-determined limits set by the mortar producer with further mixing in the truck before being retested and applied.
- If the flow on delivery is higher than required, it should be re-tested after a further 5 minutes mixing in the truck. If still out of specification it is recommended that the load is not used until the mortar producer has been contacted

Flow Test—DIN 1060 Ideal Flows:

- **230mm—270mm**
- **Underfloor Heating 230mm—250mm**

Note:

When ordering material the required flow rate should be stated. Many production plants require a "margin" of ±25mm and this must be taken into account when ordering.
Best practice is to record the results of all flow tests and details of water addition so that in the event of any problems the information is available to both Gyvlon and the producers' technical department.
Flow test equipment is available to purchase from our Warrington Head Office.

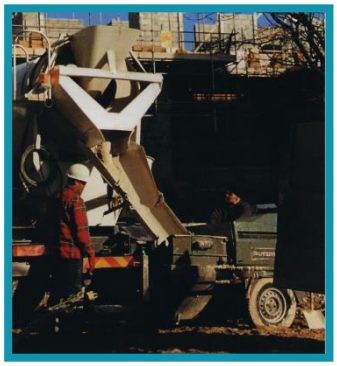
PLACEMENT

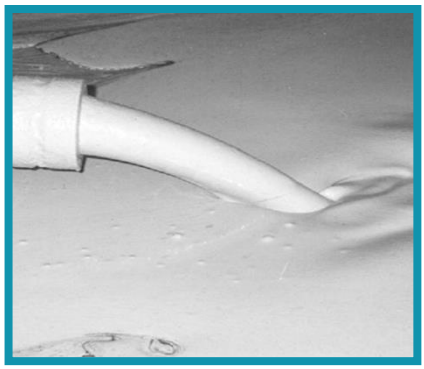
Placement is via a pump at a delivery rate of approximately 5 minutes per m^3. Such machines are readily available for hire and sale in the UK and can be towed behind most cars or vans.

Note:

The performance and operation of pumps varies, however most suppliers offer training and advice if required.

- Gyvlon screed should be placed within 3 hours of manufacture, and the drum of the mixer trucks should be turning at an appropriate speed constantly throughout this period. .





ANHYDRITEC
Tel. 01925 428780
E. sales@anhydritec.com
221, Europa Boulevard,
Warrington WA5 7TN

ANHYDRITEC
Minersa Group

Installation Guide

INSTALLATION OF THE SCREED:
Site conditions during application and the first three days following installation

As with all screeds the performance and finish achieved with Gyvlon can be affected by the conditions on site in which it is installed and for a short period afterwards. The following watch points should be adhered to during this time.

- Protect from frost. Apply the same winter working restrictions as when placing concrete, i.e. work should stop at temperatures of 5°C and falling and may resume again at 3°C and rising.
- Providing internal temperatures are maintained work may continue when the outside temperatures are as low as 2ºC.
- Do not lay at internal temperatures of 30°C and over - high temperatures extend setting times and may reduce the final strength of the screed.
- Maintain a relative humidity of 50% and above in the air above the screed during the first 48 hours after application.
- Immediately after application and until the screed has hardened protect the surface of the screed from water ingress, severe draughts and direct sunlight.
- Wherever possible avoid water ingress to completed screeds removing any standing water as soon as possible. Whilst under water the screed may suffer a minor loss of strength, however this will be regained when it dries out.

FINISHING / FINAL PLACEMENT

- The final finish on a Gyvlon screed is achieved by dappling the surface with a T-bar in two passes producing a smooth level surface and removing any air bubbles.
- The first pass with the dappling bar should be heavy enough to create a small wave in front and behind the bar helping the screed to achieve its' final level.
- The second pass, at right angles to the first, is lightly drawn across the surface, taking care not to break contact with the dapple bar and surface of the screed.
- The second pass is the final finish so care with this operation prevents remedials later.

Dappling should be carried no more than 15 minutes after placing.

ANHYDRITEC
Tel. 01925 428780
E. sales@anhydritec.com
221, Europa Boulevard,
Warrington WA5 7TN

ANHYDRITEC
Minersa Group

JOINTS

In some buildings it will be necessary to include joints in the screed which can be formed as detailed

- **Large Areas:**

Maximum bay sizes	Maximum Bay Length	Maximum aspect ratio
• 800m2 - No UFH	• 40m - No UFH	• 8-1 - No UFH
• 300m2 - UFH	• 20m - UFH	• 6-1 – UFH

- **Day Joints**

  If required shuttering should be used to create a vertical edge on the screed. After removal the next day's pour can be butted up against the first day's work.

  Note:

  If several days have passed between pours and the screed is beginning to dry out, the edge should be primed with an appropriate acrylic or epoxy primer before commencing the next pour.

- **Structural or Movement Joints**

  As with all floors, it is necessary to continue such joints through the full section of the screed.

  If long delays between two deliveries of Gyvlon occur, a temporary shutter should be used to hold the screed in place and will avoid the formation of a "cold" joint.

- **Underfloor Heating**

  In such applications any joints must follow the heating circuits and it is recommended that the manufacturer of the Underfloor heating should be consulted with regards to layout.

AFTER APPLICATION

- Gyvlon screeds do not need curing.
- Do not cover the screed, this is not necessary and will only delay final drying.
- Access to the screed should be restricted for between 24 and 48 hours to prevent damage to the screed surface before it hardens.
- The screed can be walked on 24 to 48 hours after application dependent on site conditions with normal site traffic and erection of non-load bearing partitions after 7 days.
- Gyvlon screed is not a wearing surface, and protection from other construction trades may be necessary in areas of heavy use such as loading bays.
- Depending on the following floor coverings it may be necessary to remove any surface laitance. This is accomplished by a light sanding 3 - 10 days after the screed has been laid dependent on site conditions.
- Removal of the laitance will help drying of the floor.

DRYING

- Under like for like conditions Gyvlon screed dries at the same rate as a traditional sand and cement screed (approximately 1mm/day up to 40 mm thickness. This increases for screeds thicker than 40 mm and in poor drying conditions).

- Gyvlon screed should be protected from rapid drying within the first 3 days after application however in common with other screeds, it is very important that good drying conditions are provided once initial cure has occurred.

- Forced drying of Gyvlon using dehumidifiers or commissioning of underfloor heating systems in accordance with BS1264 Part 4-2001, can begin 7 days after application of the screed. Windows and doors can be opened 3 days after installation to provide good ventilation.

SURFACE FINISH

The British Standard (BS8204) classifies the surface finish of a screed by Surface Regularity according to SR1, SR2 and SR3.

Gyvlon screed will easily achieve the requirement of SR2 however by paying particular attention it is possible to achieve SR1.