



by  ANHYDRITEC



Post installation Guidance

Site conditions

- The building must remain water tight, free from draughts; above 3 °C degrees & below 30°C for the first 48 hours.
- **After 48 hours the screed area should be well ventilated by opening windows and doors to allow the moist air to escape** to aid drying of the screed. These should be closed over-night and then reopened the following day. Cold humid site conditions will delay this drying process.
- If windows cannot be opened then dehumidifiers can be used from 72 hours to aid removal of moist air to aid drying without the risk of cracking or curling.
- Foot traffic should be possible after 24 to 48 hours.
- If fitted Under floor heating (UFH), can start to be commissioned from 7 days
- Erection of non-load bearing partitions can start after 7 days.
- Loading out with plasterboard & site materials after 7 days is possible but covering the screed could delay the drying out of the screed if left for long periods of time.
- After 7 days **SMALL** MEWPS scissor lifts and other heavy trades may be used but the use of plywood to spread their weight is required, please refer to your local Gyvlon representative for guidance before agreeing.
- **DO NOT** hose-down the screed with water to aid cleaning of the building because **it will delay** the drying of the screed.



Screed Drying Times

The most critical part of the drying process for any screed is the site conditions / environment the screed is placed in and NOT whether the surface is sanded or not!

- Good ventilation after 48 hours will greatly decrease the number of days it will take to dry.
- Low temperatures inside the building will greatly reduce the drying speed, “number of days to dry will increase”.
- The use of UFH after 7 days will greatly decrease the days it will take to dry.

Cold high humidity levels (> 70%RH) will greatly increase the days it will take to dry.

A rough guide as per the industry screed standard BS8204; the drying rates for standard traditional and flowing screeds are approximately 1mm/day up to a thickness of 40mm and then ½ mm/day for thicknesses thereafter, in very good conditions 20°C 65% RH.

If timescales are a factor then use Advanced Gyvlon screeds with the new FD E2C additive which dry twice as fast as standard screeds and enables the use of DPM's & MVS to lay tiles and vinyl's at higher moisture contents, reducing the need to completely dry out the Gyvlon screed (0.5% MC 75%RH) in turn reducing covering times (see floor covering section).

ASSISTED DRYING

Dehumidifiers can be used 72 hours after installing Gyvlon screed to aid drying by reducing moist air from within the building without causing curling or cracking of the Gyvlon screed, unlike cementitious screeds, which can be sensitive to moisture loss & dehumidifiers at an early stage.

Fossil fuel fired heaters (E.g. Gas heaters) **must not be used** as they will raise the humidity in the building.

If under floor heating (UFH) is installed then this can be commissioned from 7 days to aid drying of the screed. If the main heat source is not available then temporary boilers/heat sources are available to hire.

UFH commissioning

All UFH **MUST** be commissioned before a floor covering is applied and the heating engineer must prepare a signed record on the initial heating and the subsequent commissioning to all relevant parties as per BS1264 & manufacturers warranties.

UFH commissioning sequence

- Start at ambient floor temperature, approx. 20°C and maintain for 24 hours.
- Then raise the temperature **at the MANIFOLD** by 5°C per 24hrs until the maximum commissioning **water flow temperature** is reached (up to 45°C).
- Maintain max temp for 5 days.
- Then reduce by 5°C per day back to the starting point.
- The system should be turned off and allowed to cool for 48 hours prior to moisture testing.

Moisture Measurement

Most common testers seen are the electronic resistance meters which measure from the surface down. These vary wildly in accuracy and abilities and therefore can **only be used as a rough guide** (wet or dry).



Relative humidity testers are a British standard test for most screeds but as stated in BS8204 P7 they are not accurate for Calcium Sulphate screeds at higher moisture contents (above 85%RH will not be accurate).



The best way to get a definite value on a Gyvlon screed is to use the BS8204 P7 recommendations for either a **CM (Carbide Method) test (BS EN 13892-10)** or **Oven drying @40 °C** to give % moisture content (%MC).

(CM onsite result, Oven dry samples should be wrapped in plastic immediately after sampling ready for posting)



A rough guide to conversion between %MC & %RH is in the below table.

%RH	%MC
90%	1.5%
85%	1.0%
80%	0.7%
75%	0.5%

Preparation of the screed by the screeder

- **Standard Gyvlon screeds** (ECO, XTR, THERMIO & FINIO) should be sanded ideally 3 to 10 days post installation (timing dependent on the site conditions) to open up the surface and remove any loose friable material that may have formed and aid the screed drying process of the screed.



- **ADVANCED Gyvlon Screeds with E2C**

DO NOT REQUIRE SANDING @ 3-10 DAYS POST INSTALLATION STAGE

If installed correctly they should not require preparation except for the standard industry recommendations, “Contract Floor Association” recommend mechanically abrading , and vacuuming the screed surface just before the floor finishes application, to remove site contamination, and provide a mechanical key for the selected priming agent.



FLOOR COVERING GUIDANCE

Floor covering subfloor prep (CFA & British standards)

All screeds and concrete require a degree of mechanical preparation in order to remove any surface contamination likely to affect adhesion of the subsequent coverings just before final floor laying. This contamination could include surface treatments such as hardeners or curing agents, or construction debris (mud, plaster, mortar, paint etc).

Before the final floor covering / adhesives are applied the screed needs to be tested for moisture content (refer to moisture testing section) with the following limits in table 1 & 2 being applied.

If timescales are tight then our range of Advanced Gyvlon screeds with the new FD E2C technology, strengthens the screed properties, increasing surface adhesion performance allowing the use of vapour barriers at higher moisture contents to be used; enabling floor covering to be installed earlier; (certified and warranted by the BBA and NHBC).



Table 1

Maximum amount of moisture content in a Gyvlon screed			
Types of floor finish		Gyvlon Standard range % MC	Gyvlon Advanced E2C range % MC
Carpets	Unbonded	1.0%	2.0%
	Bonded without a levelling compound	0.5%	1.0%
	Bonded with a levelling compound & vapour barrier	1.0%	1.5%
Vinyl	Bonded without a levelling compound	0.5%	1.0%
	Bonded with a levelling compound & vapour barrier	1.0%	1.5%
Floor Tiles (ceramic or porcelain)	Primer & Calcium sulphate tile adhesive	1.0%	1.5%
	Primer & cementitious tile adhesive	0.5%	
Engineered Wood	Bonded	0.4%	0.4%
Wood cored laminate	Unbonded	0.5%	0.5%



If UFH is installed then this **MUST** be commissioned & recorded; if after this cycle there is still some residual moisture left in the screed then continue to use the UFH until dry.

If not an option, then certain vapour barriers can be applied at the following values on Gyvlon Advanced screeds Carpets 2%, Vinyl and Tiles 1% (refer to vapour barrier section).

Vapour Barriers (DPM / MVS)

In the last ten years, vapour barriers technology has advanced, allowing greater moisture contents to be sealed into floor screeds. For a long time, cementitious screeds have benefited from this breakthrough, but the new E2C technology now allows Gyvlon screeds to benefit as well. Years of cooperative testing and collaborations amongst the adhesive manufacturers have made this feasible, backed by BBA and NHBC warranties.

		Gyvlon standard range	Gyvlon Advanced E2C range	
		No UFH	No UFH	UFH
F balls	Stopgap F77	1.0%	1.5%	
Bostik	Hytec E570	1.0%	1.5%	
Palace	1 coat DPM	1.0%	1.5%	1.0%
Uzin	PE425	1.0%	1.5%	1.0%
Ardex	DPM 1C	1.0%	1.5%	

Other products are available and can be used up to our recommended limits (table 1 & 2) but the Adhesive manufacturers guidelines for the above & others must always be followed



To ensure that everything is compatible, use the same manufacturer for all of your adhesive build-up (primer, vapour barriers, smoothing compounds and so on; referring to their guidelines).

If UFH is installed then this **MUST** be commissioned & recorded; if after this cycle there is still some residual moisture left in the screed continue to use the UFH until dry; if not an option then certain vapour barriers can be applied (refer to table 2).

Primers

We would recommend most Acrylic or Epoxy primers please refer to the manufactures guidelines especially regarding dilution and the number of coats to be applied.

Tiling

Prime the surface to control suction to increase the open life of the tile adhesive then tile with either a cementitious or calcium sulphate tile adhesive dependent on the moisture content of the screed or preference; again following the adhesive manufacturer's guidelines.

For large format tiles especially on Under Floor Heated screeds we would recommend the use of a decoupling mat due to the impact of thermal movement.

Do not tile over joints in the screed, these movement joints (especially in UFH screeds) are present to allow for thermal movement of the screed .

For any queries not covered above please refer to your local Gyvlon Representative for more information.

