

KEY FEATURES & BENEFITS	GYVLON Thermio +	Cement Based Flowing Screeds	Notes
Thinner sections compared to traditional screeds	Yes	Yes	
Minimal Drying Shrinkage (<0.1%)	Nominal 0.02%	Up to 0.10%	Cement Screeds at up to 1mm per linear metre. Gyvlon at 0.2mm per linear metre
Larger floor area without joints - with UFH	300m ²	Up to 150m ²	Joints required in line with British Standards
Foot traffic after 24 –48 hours	Yes	Yes	
Thermal Conductivity W/m.K	Guaranteed to be >2.3W/m.k	Up to 2.9W/m.k Quoted	Thermio + is BBA approved and comes with a guaranteed Minimum Thermal Conductivity >2-3 , Nominal 2.5W/m.K
Energy Saving	Yes	?	
BBA Third Party Accredited	Yes	No	Thermio Certificate 16/5301:ps2
Minimum thickness above UFH pipes	20mm	25mm	Cement Systems need to be thicker above UFH, adding to material costs
Compressive strength	Nominal 35N /mm ²	Nominal 20N/mm ²	Thermio is > 30N/mm ²
Flexural Strength	➤ 8 N/mm ²	➤ 4N/mm ²	
Can be applied in wet areas	No	Yes	
Reduced drying times of 14-28 days.	No	No	Cementitious screeds will allow for finish floor application at a higher RH earlier in the program, although they may need a liquid DPM and leveller to achieve this in many cases - additional cost around > £20/m ² to the client
Reduced drying times UF Heating	Yes	No	Cementitious screeds will "unless otherwise stated by suppliers require" a minimum of 21 days curing before the heating can be commissioned, Vapour systems are not usually applied until after initial heating and drying of the screeds. Commissioning is nominally > 14-21 days so no application before 35 / 42 days even with liquid vapour barrier applied. Thermio can be forced dried in less than 30 Days, no expensive Vapour system.
Can Receive Resin Finish	Yes	Yes	
Self-compacting – no voids around UFH pipes	Yes	Yes	
Easy Installation (Reduces time & Costs)	Yes	Yes	
No Surface Laitance (Dust) after curing	No	Yes	In line with industry recommendations, all surfaces require light sanding to remove surface debris prior to application of finishes.
Protein free	Yes	No	Gyvlon is protein free and cannot harbour bacteria. Important for hospitals, medical centres and care homes

Compliance & Testing

Gyvlon has been designed to comply with the requirements of:

- European standard BS EN 13813:2002 screed material and floor screeds, Screed Material – Properties and Requirements
 - Code of Practice for Floor Screeds, BS 8204:Part 7
 - All British and European Standards in relation to all constituent materials
 - The calcium sulphate used in Gyvlon binders is produced under ISO 9001 stringently controlled conditions
 - Building Research Establishment Screed Test and indentation requirements BS 8204 class A
- Gyvlon Thermio is third party accredited BBA Certified systems

Every load of Gyvlon based screed is tested prior to site delivery. An acceptance test is also carried out by the approved contractor before it is installed.

Characteristics

Compaction – The flow characteristics of Gyvlon means that voids and poor compaction are virtually eliminated. The material self-compacts as it flows into position.

Shrinkage – Gyvlon has virtually no drying shrinkage, reducing the need for joints.

Fire Protection – Gyvlon is non-combustible as defined by BSEN 13501-1.

Acoustic performance Gyvlon is superior to that of conventional screeds (Part E regulations).

Durability – Gyvlon, as with virtually all screeds, is not a wearing surface and requires covering with a suitable surface finish.

Wet Areas – Gyvlon should not be used in permanently wet areas.

Protein Free – Cannot harbour harmful bacteria

Thickness & Area

The natural flexural strength of Gyvlon and the lack of voids, means it may be laid substantially thinner than conventional materials

If Gyvlon is a replacement screed the thickness may be reduced and the overall thickness of 75 mm made up with appropriate floor grade insulation material. Drying time will be significantly reduced allowing the wearing surface to be laid sooner.

The minimum thickness of application is shown in the table below:

Type of Construction	Minimum Application Thickness (mm)
Floating Commercial	40 mm
Floating Domestic	35 mm
Under floor Heating	20mm minimum (Thermio)

It is recommended that Gyvlon is laid on a DPM Gauge Polythene unless the substratum is dry to guard against moisture ingress. A secondary related 500 - gauge polyethylene de-bonding membrane should be used above insulation to avoid floating insulation in all cases.

Site work

Gyvlon is delivered to site ready to use and pumped directly to the point of use; this means no site mixing, only placing.

Takes 25 minutes to pump 5m³ of Gyvlon.

It is preferable during construction to ensure a steady supply throughout the placement with no break in continuity that exceeds one hour.

Temporary stop ends should be formed where there is a break in supply greater than 1 hour.

Stop ends can be constructed using timber, scaffold battens or dense concrete blocks.

The material should be pump placed onto a prepared membrane with minimum 8mm compressible plastic strips on all perimeter edges.

The membrane may be plastic with taped joints or paper either heat sealed or taped.

Under floor heating may be used 5 - 7 days after placing the screed however the temperature should be increased from ambient by no more than 5° a day until full commissioning temperature is reached.

Curing

Care should be taken to avoid excessive water loss in the first 24hours.

Any unglazed or missing windows or doors should be temporarily blocked using plastic sheeting to avoid excessive drying for the first 24 hours.

After 48 hours, all windows and doors should be opened to allow circulation or de-humidifiers may be used to force dry the material.

Direct sun must also be avoided during early life.

Gyvlon can be lightly trafficked after 1 to 2 days, depending on drying conditions.

Contractors

GYVLON screeds are usually only supplied via contractors approved by Gyvlon customers.