

- Reduced CO2 footprint
- Faster application
- Less labour intensive
- Superior surface finish
- Reduction in curing time
- Reduced thickness and weight
- Elimination/reduction of joints

GYVLON is the ultimate screed solution and is at the forefront of screed technology. It is an eco-friendly, cost effective building solution that offers our customers a self-compacting, self-levelling, flowing product which can be placed at up to 10 times the rate of a traditional concrete screed, generating significant labour and time cost-savings for our customers

	GYVLON	Conventional Sand Cement
<b>Productivity</b>	Easily up to 2000 m <sup>2</sup> per day	Only 100 to 150 m <sup>2</sup> per day
<b>How quickly can you walk on the floor?</b>	Within 24 to 48 hours Self-curing	Should not be walked on for 7 days Requires covering and curing
<b>Joints</b>	30—40 linear meters. Following building construction joints	Can be laid in small bays of between 5-7 linear meters
<b>Performance</b>	Very low shrinkage Minimal cracking Will not curl	Shrinks Cracks Curls
<b>Surface Finish</b>	Easily achieves SR2 under BS 8204	Dependant on contractor Curls and cracks at joints
<b>On Insulation</b>	No reinforcement required 40mm minimum thickness in commercial buildings 35mm minimum thickness in domestic buildings	D49 or fibre reinforcement 65mm minimum thickness
<b>Average Drying Times</b>	40 days at 40mm Dependant on site conditions Can be force dried after 7 days	9 weeks at 65mm thickness Dependant on site conditions Must dry naturally
<b>Unbonded Floor Construction</b>	Polythene laid directly to substrate minimal preparation No reinforcement 30mm minimum thickness	D49 or fibre reinforcement 50mm minimum thickness
<b>Quality Control</b>	Produced under BS EN 13454	Often mixed on site by hand with poor quality control Inconsistent quality
<b>Installation</b>	Self-compacting	Requires thorough compaction, one of main reasons of failure
<b>Environmentally Friendly</b>	Contains 98% recycled material	Cement manufacture uses 1.5 tonnes/ton of cement
<b>Health &amp; Safety</b>	Ergonomically friendly installation No cement burns	Very labour intensive
<b>Underfloor Heating</b>	High thermal conductivity Reduced cover to heating elements	Low thermal conductivity
<b>Cost</b>	In most applications Gyvlon gives cost/time savings over traditional hand applied sand and cement screed.	

## Productivity

Typical daily productivity of Gyvlon versus conventional screeds.

Screed Type	Typical number of operatives	Volume Tonnage	Achievable installed area @ thickness per day
Traditional site mixed cement sand screed	3-4	11 tonnes	100m <sup>2</sup> @ 60mm
Factory produced semi dry cement sand screed	3-4	15 – 18 tonnes	140 -170m <sup>2</sup> @ 60mm
Gyvlon	2	40m <sup>3</sup>	1000m <sup>2</sup> @ 40mm

## 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 Eco / Thermio are 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)
Bonded	>12mm Excelio 25 mm
In Contact with Substrate	30 mm
Unbonded	25mm Excelio 30 mm
Floating Commercial	40 mm
Floating Domestic	35 mm
Underfloor Heating	20mm minimum (Thermio) (25mm nominal) cover to heating elements

It is recommended that Gyvlon is laid on a minimum 500 - gauge polyethylene de-bonding membrane in all cases. Where a DPM gauge is required this must be utilised.

## 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 5m<sup>3</sup> 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 7 days after placing the screed however the temperature should be increased from ambient by no more than 5<sup>o</sup> a day until full operating 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.