

## DESIGNED SPECIFICALLY FOR USE IN MODULAR CONSTRUCTION SYSTEMS



### CASE STUDY HILLINGDON HOSPITAL MEDICAL UNIT

All Gypsol screeds are protein free, meaning they don't harbour harmful bacteria such as C-Difficile and E-Coli, and making them the perfect choice for use in hospitals.

This project, a new medical unit, required 3,500m<sup>2</sup> of floor area to be installed. The project was constructed off-site in small units by Carlton-on-Trent based modular specialist, Caledonian Modular. A timber floor was considered as an alternative to concrete,

but in order to make it functional the client required a concrete covering, or similar. Traditional concrete proved to be expensive, labour intensive and gave problems with transport due to weight issues.

Caledonian Modular contacted our technical team and Gypsol Modular screed was suggested as an alternative. Gypsol Modular is a high strength material with ingredients that help with strength gain and moisture loss. It can be laid thinner than traditional concrete, saving weight and making transportation easier. Gypsol Modular also offers environmental benefits as it is made using a bi-product of the chemical industry and is classed as a recycled product.

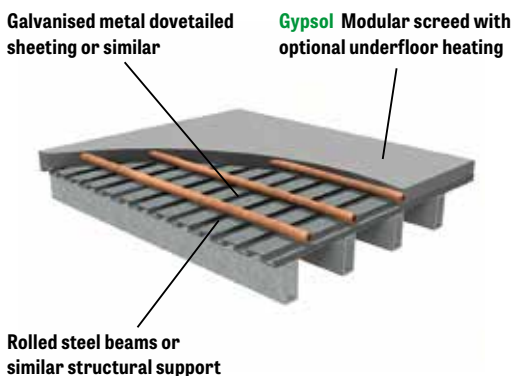
Gypsol Modular helped the builder to overcome a number of other challenges including fast setting and hardening to allow modules to be moved within the factory, quick drying to allow the application of floor coverings soon after delivery onto the final site, achieving the strength criteria appropriate for a hospital project, and finally it was very cost effective.

## DESCRIPTION

**Gypsol** Modular self compacting flowing screed is made to exacting standards by quality assured manufacturers to BS EN 13813:2002. It is a combination of high quality **Gypsol** binder, specially selected sands, water and special additives where required. It is designed specifically for use in Modular construction systems and screed is suitable for the encapsulation of an underfloor heating system, either electric or warm water. **Gypsol** Modular is suitable for use in both residential and commercial property, including apartments, schools, prison units, hospitals and single dwellings where light weight and durable modular floors are required. **Gypsol** Modular screed also improves the environmental and durability characteristics and gives a concrete feel to a light weight steel floor.

For project specific advice on design and for a Model NBS Specification Template, contact our technical and specifications team on **01928 574574**.

## TYPICAL APPLICATION SCHEMATIC



## PHYSICAL DATA

<b>Appearance</b>	Off white fluid mortar	
<b>Density</b>	Wet	2200kg/m <sup>3</sup>
	Dry	2000kg/m <sup>3</sup>
<b>Minimum Required Strength</b>	C30-F6	
<b>Required Flow (EN 13454-2)</b>	230mm to 270mm	
<b>Reaction to Fire</b>	Class A <sub>1</sub> non combustible	

## PERFORMANCE DATA

<b>Working Time</b>	Place and finish within 3 hours of batching
<b>Foot Traffic</b>	24 to 48 hours
<b>Loading</b>	5 to 7 days
<b>Drying (50mm depth)</b>	At 20°C and 60% RH - 28 days <sup>[1]</sup>
	Active force drying - 13 days <sup>[1]</sup>
	Drying times vary dependent on screed depth, ambient conditions and suitability of the building envelope.
	<sup>[1]</sup> Independently tested and verified by Action Dry Ltd. Full report available on request.
<b>Force Drying</b>	Can be force dried after 7 days

## ENVIRONMENTAL DATA

<b>Recycled Content</b>	Binder	98%
	Mortar up to	40%
<b>Carbon Emissions</b>	Binder	10 to 30kg/tonne
	Mortar	30 to 50kg/m <sup>3</sup>
<b>VOC</b>	Virtually zero	
<b>Recyclability</b>	100%	

## HEALTH AND SAFETY DATA

**Gypsol** Modular screeds are delivered to site ready-to-use via offsite mixing plants, removing the need for labour intensive site mixing and associated mixing equipment.

**Gypsol** Modular screeds are pumped directly to where they are needed, removing much of the manual handling operations required to install other screeds.

**Gypsol** Modular screeds are generally pumped using equipment with closed or gridded dispensing hoppers, removing risk of contact with moving machinery.

**Gypsol** Modular screeds are finished using a lightweight dappling bar requiring no secondary compaction, thus removing most of the physical work needed to lay other screeds. This significantly reduces the negative impact on the musculo-skeletal system of installing contractors. For material safety information please see the relevant health and safety data sheets.