CI/SfB

(43)

GRANSPRUNG HI-LOAD FLOORING

TECHNICAL INFORMATION

SUBFLOOR REQUIREMENTS

The surface of concrete subfloors and screeds should be smooth, be to a tolerance required of 2mm when measured under a 3m straight edge and 1mm under a 300mm straight edge and be left 45mm below finished floor level.

CURING OF BASE

Reference should be made to British Standards 5385 and 8203.

TOLERANCE OF LEVELS

The tolerances on the finished floor will be those achieved on the subfloor. Guidance for overall tolerances within Sports Halls can be obtained from BS 7044.

JOINTS

Movement and Contraction joints in the base do not affect Gransprung Hi-Load.

DAMP PROOF MEMBRANE

The Gransprung Hi-Load system incorporates a slip membrane. In accordance with good building practice, an effective damp proof membrane should be included within the subfloor construction. When under floor heating is installed, this membrane should be a vapour barrier.

CONDUIT/PIPES

Conduits and pipes must be recessed into the subfloor.

ENVIRONMENT

The building must be well dried out. Before, during and after installation temperature and humidity must be maintained at levels approximating those which will prevail after the building is occupied. Humidity should not exceed 70% during installation. Please note, Gransprung Hi-Load has a timber based undercarriage.

STARTING TIME

Four weeks notice is normally required to commence floor laying. Commencement of the installation is usually undertaken after the heating has been switched on and the subfloor has a moisture content of 5% or less.

DELIVERY

All materials are delivered to site from our factory in Derbyshire. The General Contractor unloads the materials and stores them under cover. All materials must be kept dry.

UNDER FLOOR HEATING

Prior to the Gransprung Hi-Load materials being delivered, the heating system should operate for at least two weeks at 70% power and for one week at full power. During this period the room must be adequately aired. The relative humidity of the air in the room should be maintained at between 40% and 60% at normal room temperature. The heating system must continue to operate throughout the Gransprung Hi-Load installation and after completion. When the moisture content of the base is less than 4%, the boards which form the undercarriage will be delivered and allowed to acclimatise for at least 10 days. During acclimatisation, the boards should be distributed throughout the room, being laid flat in piles not exceeding 4 boards high. After acclimatisation, the Gransprung Hi-Load installation will be a continuous operation.
The subfloor construction should incorporate an effective vapour barrier and so we would not normally install our slip membrane.
The surface temperature of the screed shall not exceed 29°C at any time and so we recommend that sensors are included within the screed surface which can ensure this.

INSTALLATION PROCEDURE

The undercarriage boards must be allowed to stand on site for a minimum of 7 days prior to incorporation into the floor. The slip membrane, with edges overlapped and sealed, is laid on the subfloor surface. The first layer of resin bonded building board or exterior grade plywood (2440mm x 1220mm x 12mm), with resilient pads (75mm x 75mm x 12mm thick) fixed on the underside to a pre-determined grid and an 8mm thick support board secured around them, is loose laid with a 2mm joint around every board. This space is provided to avoid contact between the boards which may possibly induce 'squeak' within the system while under load. The second layer is glued and screwed to the first layer, with a 2mm joint around each board, to form a totally integrated undercarriage. The boards in the second layer run at right angles to the length of the boards in the first layer and so that no linear joints coincide. 174mm x 57mm x 10mm Granwood floor blocks (ribbed back) are adhered to the undercarriage with 'Granfix PA' polyurethane adhesive. Blocks are laid basket or straight lay pattern. All joints are grouted.

FINISHING PROCEDURE

Once fixed, the floor is sanded with an electric floor sanding machine and sealed with our polyurethane seal. A minimum temperature of 8°C must be maintained whilst the seal is being applied and it is curing.

EXPANSION

The Gransprung Hi-Load flooring is left 20mm from the perimeter walls to allow for movement.

ACCESS PANELS

Access panels are not available in Gransprung Hi-Load.

ELECTRICAL POWER

Supply to be 230V. Our sanding machines can only operate on 230V. We provide circuit breakers as protection.

MAINTENANCE

When the building is occupied, the floor should be cared for using products recommended by Granwood Flooring Limited. Maintenance will consist of cleaning the floor surface at appropriate time intervals. A company representative will provide free advice on and demonstrate procedures for individual maintenance programmes. Full information is available from our specialist subsidiary Granwax Products Limited. The floor will require periodic resealing and free guidance can be obtained from Granwood Flooring Limited. The life expectancy of the seal is dependent upon the type and frequency of usage and the effectiveness of the day to day cleaning regime.

TECHNICAL SALES HELPLINE: 01773 606060

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Slip Membrane: 2 layers of 1000 gauge polythene, complying with the Packaging and Industrial Films Association Voluntary Standard 6/83*, lapped, jointed and turned up the walls.

Resilient Pad: 12mm thick closed cell cross linked polyethylene foam.

Resin Bonded Board: Conforms to EN312 : 1996. Part 5 requirements for load bearing boards.

Plywood: Exterior quality complying with BS 6566.

Support Board: OSB board manufactured in accordance with EN300 : 1997. Granfix P.A. Polyurethane Adhesive: Two component, solvent free with good flexibility and excellent water, chemical and fungal resistance.

Screws: 22mm long zinc and clear with a plas grip thread.
15mm long zinc and clear with a plas grip thread.

Dimensions: Granwood Blocks: 174 x 57 x 10mm (nominal)
Undercarriage Boards: 2440 x 1220 x 12mm.
Support Boards: 2440 x 1220 x 8mm with grid of apertures approx 85 x 85mm.

Granwood Blocks: comply with BS 5385 Part 5.

Weight: The weight of the system is approx. 34.5Kg/m².

Fire Resistance: The Granwood block surface gives a Class 1 resistance to Surface Spread of Flame to BS 476. Further precautions are not normally required with this type of floor but if necessary the use of intumescent paint over the undercarriage would give a Class 1 resistance to the whole system.

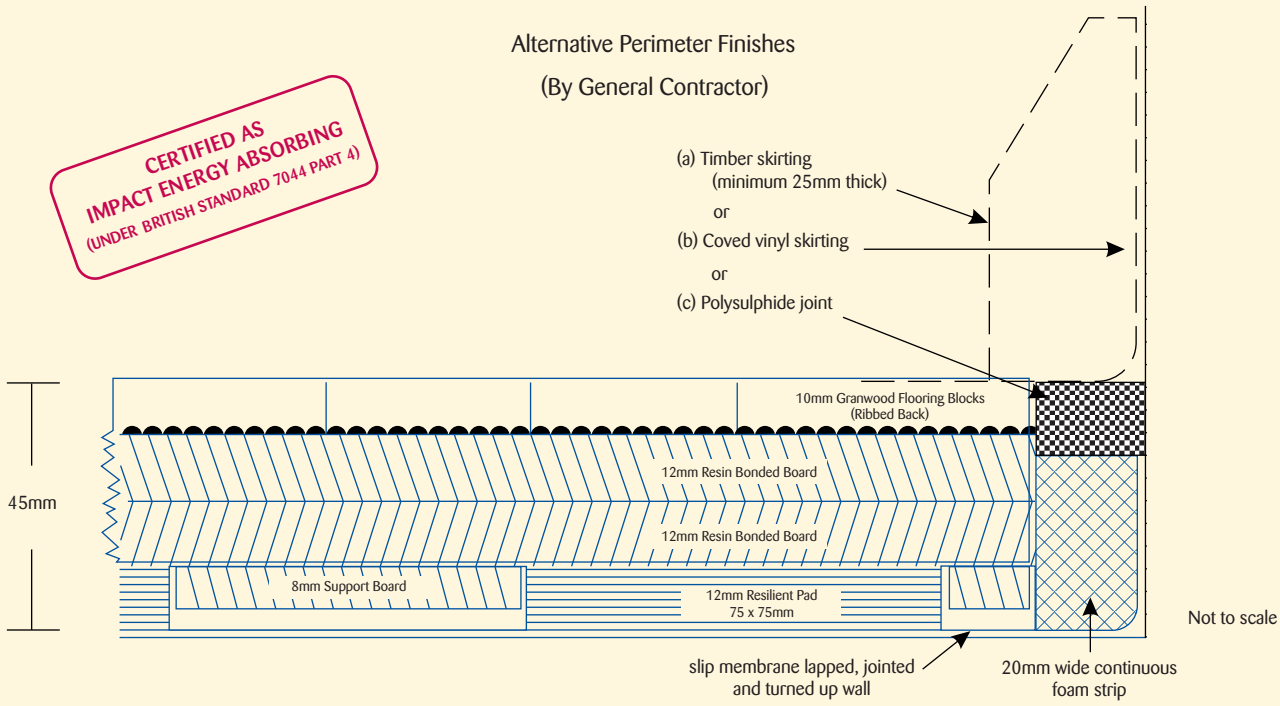
Static Floor Loadings: The Gransprung Hi-load system is designed to meet the static load requirements set out in BS 6399 Part1 : 1996 for gymnasia and sports halls of 5KN/m² distributed load and will allow a 9KN concentrated load.

Moving load: Mobile equipment must have clean flat smooth wheels with solid, air filled or thermoplastic rubber tyres, or wheels with a similar flexible contact suliace, which will safely distribute the maximum quasi-static load of 5.0KN over a minimum cross-sectional contact area of 9cm².

Equipment Wheels: We recommend that polypropylene wheels with thermoplastic rubber tyres are fitted to any equipment trolleys, seating units or other large mobile apparatus which is to be used on a Gransprung Hi-load floor, with all wheels being cleaned and maintained on a regular basis.

Note: Any loads which act on the floor surface less than 300mm apart from each other are deemed to act as a single load.

CROSS SECTIONAL DETAIL



Architectural Specification: Gransprung Hi-Load: Supply and install a slip membrane suitably lapped and jointed to prepared base left 45mm below finished floor level with any localized bumps or hollows not greater than 2mm when measured using a 3m straightedge or 1 mm under a 300mm straightedge. Membrane to be returned up against external walls. Supply and install Gransprung Hi-Load area elastic multi purpose sports flooring system by fixing 1 Omm (nominal) Granwood composition blocks in Granfix PA polyurethane adhesive onto two layers of resin bonded building board undercarriage with 75mm x 75mm x 12mm thick closed cell cross linked polyethylene foam resilient pads and 8mm thick support boards fixed to the underside of the bottom boards spaced such that there are 21 no. resilient pads and apertures per square metre of flooring. Grout all joints with Granwood grout of matching colour, machine sand the whole floor surface and apply Granwood polyurethane seal. Leave a 20mm expansion gap to all perimeter walls and at thresholds which should be suitably masked. Choice of colour and laying pattern of blocks to be stated.

MULTI SPORT FLOORING WITH RESILIENCE TO DELIGHT THE SPORTSPERSON

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February 2001