

# GRANSPRUNG AREA ELASTIC FLOORING

## TECHNICAL INFORMATION

### SUBFLOOR REQUIREMENTS

The surface of concrete subfloors and screeds should be smooth, be to the tolerances required of the finished floor and be left 45mm below finished floor level.

### CURING OF BASE

Reference should be made to British Standards 5385 and 8203.

### TOLERANCE OF LEVELS

Tolerances of concrete slabs and cement/sand screeds should be specified and guidance may be obtained from the appropriate British Standards and Codes of Practice. The tolerances on the finished floor will be those achieved on the subfloor. Guidance for tolerances within Sports Halls can be obtained from BS 7044.

### JOINTS

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

### DAMP PROOF MEMBRANE

The Gransprung 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 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 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 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 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 31°C at any time and so we recommend that sensors are included within the screed surface which can ensure this.

### INSTALLATION PROCEDURE

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, 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.

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

### ACCESS PANELS

Access panels can be incorporated. Please consult our Technical Sales Helpline.

### 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.

**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.

**Dimensions:** Granwood Blocks: 174 x 57 x 10mm (nominal)  
Undercarriage Boards: 2440 x 1220 x 12mm.

**Granwood Blocks:** comply with BS 5385 Part 5.

**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.

**Weight:** The weight of the system is approx. 30Kg/m<sup>2</sup>.

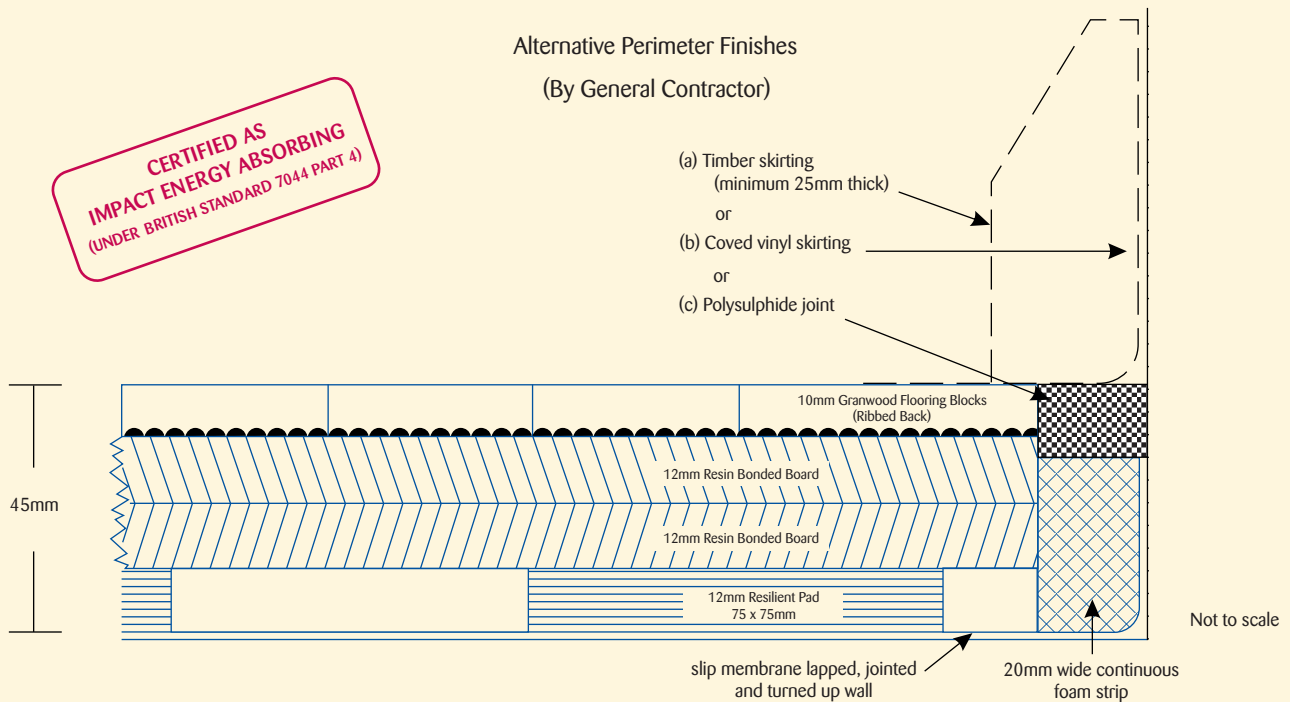
**Static Floor Loadings:** The Gransprung system is designed to meet the static load requirements set out in BS 6399 Part1 : 1996 for gymnasias and sports halls of 5KN/m<sup>2</sup> distributed load and 3.6KN concentrated load.

**Moving Load:** Mobile equipment should preferably have clean flat smooth wheels with solid, air filled or thermoplastic rubber tyres, or wheels with a similar flexible contact surface, which will safely distribute the maximum quasi-static load of 3.6KN over a minimum cross-sectional contact area of 9cm<sup>2</sup>.

**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 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:** Supply and install a slip membrane suitably lapped and jointed to prepared base left 45mm below finished floor level. Membrane to be returned up against external walls. Supply and install Gransprung area elastic multi purpose sports flooring system by fixing 10mm (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 fixed to the underside of the bottom boards spaced such that there are 21 no. resilient pads 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.

Written customised performance specifications can be provided on request.

## MULTI SPORT FLOORING WITH RESILIENCE TO DELIGHT THE USER



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QUALITY BRITISH FLOORS FOR EVERY LOCATION

Granwood Flooring Limited seek constantly to improve quality and performance of their flooring systems and in consequence reserve the right to vary specifications without notice

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