

**Building Construction****GROUND FLOORS****GROUND FLOOR SUB-BASE**

Minimum 150mm of hardcore to make up levels from stripped site levels to underside of slabs. All hardcore layers must be compacted with a mechanical vibrating roller, and then the top surface blinded with sand. Depths of 300mm and above must have a centre layer of 100mm. 1:12 lean mix concrete, and hardcore filling should not exceed 500mm overall depth. The method to be adopted will need to be approved by the Structural Engineer.

Sand blinding to surfaces to receive sheet overlay sufficient to provide a closed smooth surface. Mineral Wool insulation is the preferred under slab insulation.

**DAMP PROOF MEMBRANE**

1200 gauge polythene with overlaps not less than 150mm and sealed with tape. DPMs to overlap DPCs

Where screeds are required to accurately match existing situations liquid DPM's may be a more practical solution.

**GROUND BEARING FLOOR SLABS**

150mm thick grade C35 with nominal maximum size of aggregate 20mm. Well screened recycled aggregates maybe appropriate.

The use of poker vibrators to remove any voids is recommended provided that any reinforcement of mesh has been set on spacers to maintain its position in the slab during this operation.

Where reinforced a single layer of fabric to BS4483 is usually placed in the upper part of the slab. The slab is power floated to give an even surface.

Where it is necessary to reduce drying times the use of finished ground bearing slabs has been found to be appropriate. The lack of screeds however requires service routes to be determined and remain fixed. i.e. limited flexibility during later construction stages. Where power floated slabs are used, the risk of moisture retention is still great, particularly if there is a polythene layer beneath.

It is recommended that vinyl sheet or tiles are not used in these circumstances unless prolonged drying times can be guaranteed.

The success of power floated slabs is subject to the weather conditions and a skilled operative. Latex will be required to smooth out any irregularities. An alternative is a power tamp finish fully latexed.

### **SUSPENDED GROUND FLOOR SLABS**

When ground bearing slabs are uneconomical because of the extent of fill or other structural reasons precast plank or beam and block floor construction maybe employed. Finish is 75mm thick sand/cement screed on insulation.

The type of blockwork used in pot and beam floors must be dense enough to allow workmen to walk on it without causing cracking, otherwise protection is required. Treatment of the exposed strata beneath requires a non-systemic bio-degradable weedkiller and 1000 polythene weighted with sand.

This type of floor does not reduce drying times unless a timber floating floor is specified to the top of pot and beam construction, but there is an advantage in the provision of a working floor surface at an early stage in the construction process. Ventilation of sub-floor is required.

### **TIMBER SUSPENDED FLOOR**

Pressure preservative treated strength graded timber joists to BS4978 with 19mm W.P.B. ply with sanded finish, 19mm approved high density particle board or equal M.R.T.G. decking, or ex 25mm T&G softwood boarding.

Suspended ground floors are to be constructed in the traditional manner with oversite concrete, honeycombed sleeper walls and be adequately ventilated and insulated.

**<< Previous Page**

**Next Page >>**