

## M10 SCREEDS

## CEMENT BASED LEVELLING/WEARING

To be read with Preliminaries/General

conditions.

115  
GROUND FLOOR.

CEMENT:SAND LEVELLING SCREEDS TO

blinding.

- Base: Rigid foam insulation laid over 50mm sand
- Screed construction: Floating.

- Thickness (minimum): 175 mm.
- Reinforcement for crack control: see 392.

- Mix:

from:

- Cement: Select

class 42.5 or Portland blastfurnace to BS 146, class 42.5.

Portland to BS 12,

- Sand: To BS 882.  
Grading limit: To

BS 8204-1, table 1.

- Proportions

(cement:sand): 1:3 – 4.5.

- Admixture: Water reducing to BS 5075-1, dosage to manufacturer's recommendations.

- Other requirements:

- Finish:

- Method: see 540.

- To receive: carpet

or vinyl.

– Soundness: Test

to BS 8204:Part 1, Appendix B.

## GENERALLY/PREPARATION

210

SUITABILITY OF BASES

- General:

- Suitable for specified

levels and flatness/regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.

- Sound and free from

significant cracks and gaps.

- Cleanliness: Remove plaster, debris and dirt.

- Moisture content: New concrete slabs to receive

fully or partially bonded construction must be dried out by exposure to the air for not less than six weeks.

220

PROPRIETARY LEVELLING/WEARING SCREEDS

- General: Materials, mix proportions, mixing

methods, minimum/maximum thicknesses and workmanship must be in accordance with recommendations of screed manufacturer.

250

CONDUITS UNDER FLOATING SCREEDS

- Haunching: Before laying insulation for floating

screeds, haunch up in 1:4 cement:sand on both sides of conduits.

251

CONDUITS CAST INTO OR UNDER SCREEDS

- Overlay with reinforcement selected from:

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steel fabric to BS 4483, reference D49, or  
 manufactured in rolls from mild steel wire not less than 1.5 mm diameter to BS 1052, mesh size 50 x 50 mm.

- 500 mm wide strip of
- Welded mesh
- Placing reinforcement: Mid depth between top of conduit and the screed surface.

270

brushed finish with no surface laitance.

wash clean the surface and keep well wetted for several hours. Remove free water then brush in a slurry bonding coat of creamy consistency.

prepare, prime as necessary and apply a bonding agent to manufacturer's recommendations.

is still wet to ensure a good bond.

PARTIALLY BONDED CONSTRUCTION:

- The surface of the base must have a
- Shortly before laying screed, thoroughly
- As an alternative to wetting and slurring,
- Lay screed/topping while slurry or bonding agent

290

pipes incorporated where necessary. See M&E Specification

butt joints. Continue up at perimeter abutments for full depth of screed.

FLOATING CONSTRUCTION

- Insulation:
  - Type: Rigid – with heating
  - Installation: Lay with tight

295

IMPACT SOUND INSULATION)

isofoam.

that may puncture the insulation.

base. Turn up for full depth of screed at all abutments with walls, columns, etc and score to achieve a 90° bend into corner. Ensure that the isolation protrudes min. 50mm above the screed after laying. Fold excess down over screed on installation of skirting and cut flush with face of skirting to ensure all gaps are filled. Lap 100 mm at joints and seal with tape.

mesh size 50 mm, wire designation 19, over separating layer with 50 mm laps and tie securely with steel wire.

FLOATING CONSTRUCTION (THIN SHEET

- Insulation: Polyethylene foam
- Manufacturer and reference: Polyfoam
- Thickness: 5mm.
- Ensure that the base has no projections
- Lay foamed plastics sheet insulation on
- Lay wire netting to BS 1485,

## BATCHING/MIXING

310

BATCHING WITH DENSE AGGREGATES

- Mix proportions: Specified by weight.
- Batching: Select from:
  - Batch by weight.
  - Batch by volume:

Permitted on the basis of previously established weight:volume relationships of the particular materials. Use accurate gauge boxes. Allow for bulking of damp sand.

330

calcium chloride.

MIXING

- Admixtures: Do not use admixtures containing

full compaction, low enough to prevent excessive water being brought to surface during compaction.

- Water content: Minimum necessary to achieve consistence. Mixes other than no-fines must be mixed in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
- Mixing: Mix materials thoroughly to uniform consistency. Use while sufficiently plastic for full compaction.
- Ready-mixed retarded screed mortar: Use within working time and site temperatures recommended by manufacturer. Do not retemper.

340

#### ADVERSE WEATHER

5°C for not less than four days after laying.  
drying out.

- Screeds surface temperature: Maintain above 5°C
- Hot weather: Prevent premature setting or drying out.

#### LAYING

345

#### LEVEL OF SCREED SURFACES

(allowing for thickness of coverings).

- Permissible deviation:  $\pm 10$  mm from datum

355

#### SCREEDS

#### FLATNESS/SURFACE REGULARITY OF FLOOR

a 3 m straightedge with feet, placed anywhere on surface using a slip gauge to BS 8204-1 or -2 (or equivalent).

- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of

375

#### COMPACTION OF SCREEDS

approximately equal thickness. Roughen surface of compacted lower layer then immediately lay upper layer.

- General: Compact thoroughly over entire area.
- Screeds over 50 mm thick: Lay in two layers of

392

#### GENERAL REINFORCEMENT

screed and lap edges not less than 100 mm. Tie securely with steel wire. Continue through daywork joints.

- Type : D49 to BS 4483.
- Installation: Place between the two layers of
- Corners: Avoid a four layer build at corners.

405

#### JOINTS IN LEVELLING SCREEDS GENERALLY

screeds' between strips or bays. Minimise defined joints.

- Laying screeds: Lay continuously using 'wet
- Daywork joints: Form with vertical edge.

460

#### STRIP MOVEMENT JOINTS:

finished level of floor. Extend joints through to base.  
recommendation.

- Manufacturer: See Structural Engineers Spec..
- Installation: Set securely into screed to exact
- Secure fixing to base: To manufacturer's

#### FINISHING/CURING

510

#### FINISHING GENERALLY

optimum times in relation to setting and hardening of screed material.

- Timing: Carry out all finishing operations at optimum times in relation to setting and hardening of screed material.
- Prohibited treatments to screed surfaces:
  - Wetting to assist surface working.
  - Sprinkling cement.

530

#### SMOOTH FLOATED FINISH

- Finish: Even texture with no ridges or steps.

540

#### TROWELLED FINISH TO LEVELLING SCREEDS

- Floating: To an even texture with no ridges or steps.
- Trowelling: To a uniform, smooth but not polished surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

550

#### TROWELLED FINISH TO WEARING SCREEDS

- Floating: To an even texture with no ridges or steps.
- Trowelling: Successively trowel at intervals, applying sufficient pressure to close surface and give a uniform smooth finish free from trowel marks and other blemishes.

650

#### CURING

- General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
- Curing period: Keep polyethylene sheeting in position for not less than 7 days.
- Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions that will cause cracking or other shrinkage related problems.

#### REVISIONS