



# DURSIL M

## STRUCTURAL MONOLITHIC FLOORING

Standard UNI 11146 - Chapter 4.1 - NTC 1/2008

### DESCRIPTION

High strength structural monolithic flooring resting on ballast.

Application Terminology: "Fresh on Fresh" obtained by applying the surface layer as a mortar to the anti-wear surface layer of a thickness of approx. 10cm on DURSICAL M concrete with a thickness of between approx. 20 and 25cm.

### WHERE IT IS APPLIED

Newly constructed monolithic floor. Laid on ballast.

Suitable for loads (II) and operations (M-P). (See DIN Standard 1100).

Heavy industry, intensive warehousing, workshops etc..

### STRENGTHS

It is a long lasting, hard wearing flooring which is easy to maintain.

### WEAKNESSES

Any issues may be caused by:

- 1) Inadequate base soil compaction and inaccurate levelling (Subsidence of slabs and cracks).
- 2) A failure to plan for the appropriate thickness, type of concrete and reinforcement used. Sizing of the slabs with respect to the loads and movement expected (premature wear, damage to construction joints, cracks in the slabs).
- 3) Failure to use **DURSICAL M** concrete (crumbling, pitting, cavities, cracked state and warping.).

### NOTE:

The floor may be smoothed and coloured.

The surface may be treated with **COVERSIP** (part of the **CHEMIDUR** range) neutral or coloured, with dust free, waterproof and shine coating.



### SPECIFICATION FOR THE DESIGN

**DURSIL M** monolithic industrial flooring comprising:

#### A) SURFACE LAYER

A mixture based on spheroidal quartz and hard minerals with the addition of special binders, with a homogeneous granulometric curve of between 0.125 - 3.0mm

In a ratio of 10-12 kg per m<sup>2</sup> Mixed with water with 7Kg of cement per m<sup>2</sup>. The compound is applied as mortar on fresh concrete and then finished.

#### B) LOAD BEARING CONCRETE PLATE

DURSICAL M concrete plate with a thickness of between 20 and 25cm. (Formulated, reinforced concrete to achieve the performance expected by the design of the project. Resistance, durability and controlled shrinkage are basic elements of DURSICAL.) Thickness and reinforcement requires a design project.

#### C) SEPARATION BARRIER

PVC isolation layer between the base and the flooring. Separation from the elevated structures

#### D) SUPPORTING BASE

Soil stabilised using the Westergaard method.

# DURSIL M MONOLITHIC FLOORING TECHNICAL DATA SHEET

## STABILISED SOIL

Excellent compaction of the load bearing soil by rolling in several stages.  
(Westergaard method to comply with subfloor requirements for the floor design.)

## FLOORING COMPOSITION

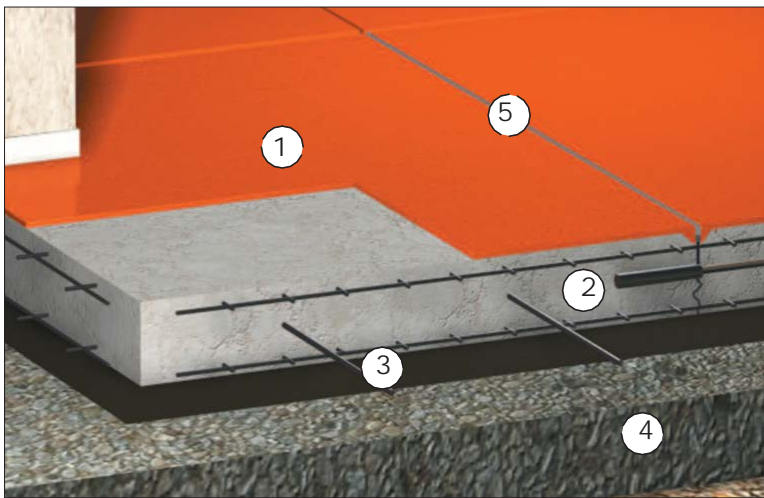
- 1) DURSIL M surface layer with a thickness of approx. 10mm.
- 2) A reinforced DURSICAL M concrete plate of 20-25cm
- 3) Stabilised load bearing soil

Load bearing weight of the flooring with respect to the project is variable from 5,000 to 10,000kg/m<sup>2</sup> with a static load.

The surface layer is applied to the concrete "Fresh on Fresh" mortar method.

The contraction joints are carried out use a mechanical cut of ordinary dimensions of ml 5 x 5 and filled with PVC or sealed with resin.

The flooring must be isolated from elevated structures.



1) DURSIL M anti-wear surface layer.
2) Reinforced DURSIL M concrete plate according to the project.
3) PVC damp proof barrier
4) Soil stabilised using the Westergaard method.
5) Sealed joint

DURSIL M	DURSICAL M	BARRIER	STABILISED	JOINT
Compression $\leq$ kg/cm <sup>2</sup> 870 Torsion $\leq$ kg/cm <sup>2</sup> 120 Usage $\leq$ 3,5 cm <sup>3</sup> /50 cm <sup>2</sup>	Concrete $\geq$ RC 35 Reinforced with mesh or fibres Depending on the project Workability according to the application table (See reference table )	Polyethylene sheet on top Separation from the structure In elevation	STABILISED SOIL In several steps Rolling and wetting with Resistance between $K \geq 10/25$ kg/cm <sup>2</sup>	Sealed cut joints with a filler cord and filled with resin (surcharge)

## SURCHARGE

A surcharge is charged for the following colours: Red, white, black, brown, green.

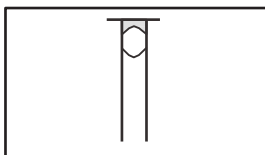
COVERSIP Surface treatment (part of the **CHEMIDUR** range) neutral, coloured, added shine.

## CONSTRUCTION JOINTS

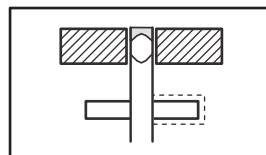
The following construction joints may be used to enhance the use and performance of the flooring, for an additional charge.

1-2 Resin sealed contraction joint, construction joint in resin mortar.

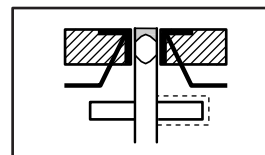
3-4 Construction joint using metal joints applied at the time the floor is laid.



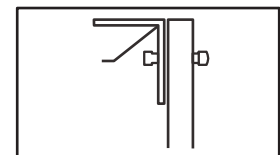
1 - Joint SR



2 - Joint TM



3 - Joint CM



4 - Joint MF

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