



# DURSIL S

STRUCTURAL MONOLITHIC FLOORING  
Standard UNI 11146 - Chapter 4.1 - NTC 1/2008

## DESCRIPTION

Structural monolithic floor with medium strength resting on ballast.

Application Terminology: "Fresh on Fresh" obtained by applying the surface layer as a 3mm thick dry-shake anti-wear layer of approx. 3mm on a 15 to 20cm thick layer of DURSICAL S concrete.

## WHERE IT IS APPLIED

Newly constructed monolithic floor. Laid on ballast.

Suitable for loads (I) and operations (L). (See DIN Standard 1100).

Large sheds, public spaces, garages 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 S** concrete (crumbling, pitting, cavities, cracked state and warping.)

## NOTE

The floor may be smoothed, striped, coloured, floated and nuanced with moulded designs. 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 S 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 and 2.0mm, in ratio of 2-3kg per m<sup>2</sup>. Dry mixed with 2Kg of cement per m<sup>2</sup>. The compound is applied as a dry shake on fresh concrete and then finished.

### B) LOAD BEARING CONCRETE PLATE

DURSICAL S concrete plate with a thickness of between 15 and 20cm.

(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 S 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

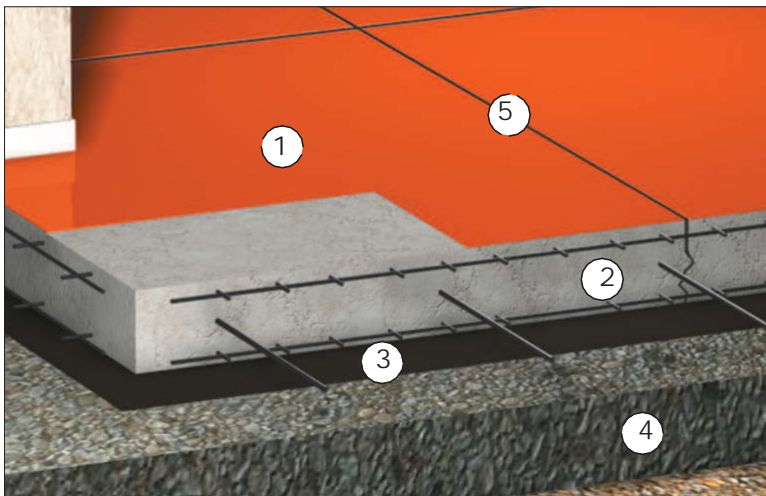
- 1) Surface layer of DURSIL S With a thickness of approx. 3mm.
- 2) A reinforced DURSICAL S concrete plate of 15-20cm.
- 3) Stabilised load bearing soil

Load bearing weight of the flooring with respect to the project is variable from 1,000 to 5,000kg/m<sup>2</sup> with a static load.

The surface layer is applied to the concrete plate as "Fresh on Fresh" using a dry shake 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 S anti-wear surface layer.
2) DURSICAL S reinforced concrete plate according to the project.
3) PVC damp proof barrier
4) Soil stabilised using the Westergaard method.
5) Sealed joint

DURSIL S	DURSICAL S	BARRIER	STABILISED	JOINT
Compression $\leq$ kg/cm <sup>2</sup> 650 Torsion $\leq$ kg/cm <sup>2</sup> 100 Usage $\leq$ 5,5 cm <sup>3</sup> /50 cm <sup>2</sup>	Concrete $\geq$ RC 30 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)

## SURCHARGES

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

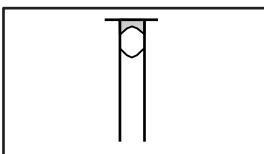
COVERSIP Surface treatment (part of the CHEVIDUR range) neutral, coloured, added shine.

## Construction joints

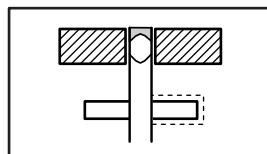
The following construction joints may be used to enhance the use and performance of the flooring, for an additional charge.

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

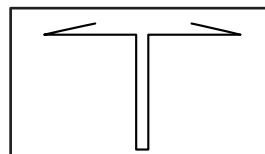
3-4 Construction joint using metal joints applied at the time the floor is laid.



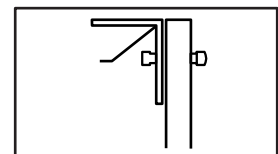
1 - Joint SR



2 - Joint TM



3 - Joint CP



4 - Joint MF

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