CONCRETE AND RESIN MONOLITHIC FLOORING

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The desire to have a continuous surface means choosing a monolithic floor.

Creating it can hold some real unknowns if all the required elements are not designed in accordance with industry regulations and certified in the execution phase.

The idea is to facilitate the choice of the floor that best represents the state of the art.

This booklet is a compilation of data sheets of our Performance Floors which are most commonly used in civil and industrial construction.

The creation of these data sheets have helped hundreds of people with their work, over the decades, and have made it possible to pass on the experience that is the heritage of the Company.
Dursil is the flooring brand synonymous for having cement binders and its derivatives. The floors are generally made in a single construction, applying the surface layer to the newly laid concrete plate.

![Dursil S in section](image1) ![Dursil M in section](image2)
![Dursil 5-10 in section](image3) ![Dursil 10-15 in section](image4)
![Dursil Light in section](image5) ![Dursil Lastrosystem in section](image6)

Chemidur is the brand readily identified with floors having synthetic resin binders. The floors are generally made in two construction phases, applying the surface layer to a cured concrete plate.

![Coversip in section](image7) ![Chemidur FX in section](image8)
![Chemidur SP in section](image9) ![Chemidur ST in section](image10)
![Chemidur CE in section](image11)
**TYPICAL USES**

**DURSIL**
- Cement flooring
  - Fresh
  - On Fresh
  - DURSIL S
    - Flooring on ballast
  - DURSIL M
    - Flooring on ballast
  - DURSIL 5-10
    - Flush flooring to the concrete plate
  - DURSIL 10-15
    - Flooring laid on a concrete plate or a pre-fabricated structure
  - DURSIL Light
    - Flooring supported on a pre-fabricated structure
  - DURSIL Tiles
    - Flooring on mortar
  - DURSIL Lastrosystem sheet
    - Flooring on a bed of sand

**CHEMIDUR**
- Resin flooring
  - Monolithic
  - Film coverings
    - COVERSIP
      - Penetrating film
  - Thick coverings
  - CHEMIDUR FX
    - Multi-layer flooring
  - CHEMIDUR SP
    - Self-levelling flooring
  - CHEMIDUR ST
    - Mortar flooring
  - CHEMIDUR CE
    - Antistatic flooring

**Prefabricated**
- DURSIL
  - DURSIL 5-10
  - DURSIL 10-15
  - DURSIL Light
  - DURSIL Tiles
  - DURSIL Lastrosystem sheet

**Facing**
- DURSIL 5-10
- DURSIL 10-15
- DURSIL Light
A monolithic floor needs a specific project.

The synergies between structural calculations and the years of experience and craftsmanship go hand in hand.

Some of the elements that make up a suitable project are:

*1) The choice of aggregates and binders used in the surface layer.

*2) The characteristics of the supporting concrete.

*3) The structural calculations of the plate.

*4) The supporting base for the floor.

*5) The control procedures during construction and the final sign-off.

* All these aspects are explained in the data sheets for performance flooring in accordance to the reference standards.
The table shows the construction joints that separate the flooring slabs.

Our construction joints are optimised for the specific use in performance flooring.

<table>
<thead>
<tr>
<th>Joint</th>
<th>SR</th>
<th>Joint</th>
<th>TM/P</th>
<th>Joint</th>
<th>TM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td>CM</td>
<td>Joint</td>
<td>MF</td>
<td>Joint</td>
<td>CV</td>
</tr>
<tr>
<td></td>
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<td>Joint</td>
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<td></td>
<td>Joint</td>
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<td>Joint</td>
<td></td>
</tr>
</tbody>
</table>

**DURSIL S** uses . **SR JOINTS** - TM - CP - MF

**DURSIL M** uses . **SR JOINTS** - TM - AM - MF

**DURSIL 5-10** uses . **SR JOINTS** - RC - TM/P - MF

**DURSIL 10-15** uses . **SR JOINTS** - TM - CV - MF

**DURSIL Light** uses . **SR JOINTS** - TM - CV - MF
| DURSIL S | Structural reinforced monolithic flooring.  
|          | Thickness of 15/20cm  
|          | Surface layer of approx. 3mm.  
|          | This flooring is laid directly on ballast.  
|          | Standard UNI 11146 - Chapter 4.1 - NTC 1/2008 |
| DURSIL M | Structural reinforced monolithic flooring.  
|          | Thickness of 20/30cm.  
|          | Surface layer of approx. 10mm.  
|          | This flooring is laid directly on ballast.  
|          | Standard UNI 11146 - Chapter 4.1 - NTC 1/2008 |
| DURSIL 5-10 | Flush monolithic flooring.  
|              | Thickness of 5/10cm.  
|              | Surface layer of approx. 10mm.  
|              | This flooring is anchored to the cured concrete plate.  
|              | Standard UNI 11146 - Chapter 4.4 |
| DURSIL 10-15 | Monolithic flooring on a support.  
|                | Thickness of 10/15cm.  
|                | Surface layer of approx. 3mm.  
|                | This flooring is laid on a concrete plate or on a prefabricated structure.  
|                | Standard UNI 11146 - Chapter 4.2 |
| DURSIL Light | A lighter monolithic flooring on a supporting structure.  
|                | Thickness of 10/15cm.  
|                | Surface layer of approx. 3mm.  
|                | This flooring is laid on a prefabricated structure.  
|                | Standard UNI 11146 - Chapter 4.2 |
PREFABRICATED CEMENT FLOORS

DURSIL Piastrelle (Tiles)
Industrial tiled, high resistance flooring in the following sizes:
25x 25 x 2.7cm or 30x30x3.3 cm
or 33 x 33 x 3.5cm or 40 x 40 x 3.9cm
This floor is laid with cement mortar or on a concrete plate.

DURSIL Lastrosystem
Industrial plate, high resistance flooring in the following sizes:
2.00x 2.00 x 0.15m
This floor is laid on a bed of sand.
## INDUSTRIAL RESINFLOORS

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Surface Condition</th>
<th>Support Adequacy</th>
<th>Standard Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COVERSIP</strong></td>
<td>A neutral or coloured dust-free treatment for cement floors.</td>
<td>This process is used on floors that are sound and without defects.</td>
<td>Standard UNI 10966 - UNI 8298-1</td>
<td></td>
</tr>
<tr>
<td><strong>CHEMIDUR FX</strong></td>
<td>Multi-layer flooring with a thickness of 1.5-3mm.</td>
<td>This flooring is used on surfaces that are sound and without defects.</td>
<td>Any imperfections can be taken care of with appropriate products.</td>
<td>Standard UNI 10966 - UNI 8298-1</td>
</tr>
<tr>
<td><strong>CHEMIDUR SP</strong></td>
<td>Self-levelling flooring with a thickness of 1.5-3mm.</td>
<td>This flooring is used on surfaces that are sound and without defects.</td>
<td>Any imperfections can be taken care of with appropriate products.</td>
<td>Standard UNI 10966 - UNI 8298-1</td>
</tr>
<tr>
<td><strong>CHEMIDUR ST</strong></td>
<td>A resin mortar flooring with a thickness of approx. 5-15mm.</td>
<td>This flooring can be laid even on imperfect surfaces.</td>
<td>Any inadequacies in the support can be corrected with appropriate products.</td>
<td>Standard UNI 10966 - UNI 8298-9</td>
</tr>
<tr>
<td><strong>CHEMIDUR CE</strong></td>
<td>Anti-static flooring with a thickness of 1.5-3mm.</td>
<td>This flooring is used on surfaces that are sound and without defects.</td>
<td>Standard UNI 10966 - UNI 8298-10</td>
<td></td>
</tr>
</tbody>
</table>
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 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 (l) 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 m². Dry mixed with 2Kg of cement per m². 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
**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 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/m² 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.

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**DURSIL S MONOLITHIC FLOORING TECHNICAL DATA SHEET**

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

<table>
<thead>
<tr>
<th>DURSIL S</th>
<th>DURSICAL S</th>
<th>BARRIER</th>
<th>STABILISED</th>
<th>JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression ≤ kg/cm² 650</td>
<td>Concrete ≥ RC 30</td>
<td>Polyethylene sheet on top</td>
<td>STABILISED SOIL</td>
<td>Sealed out joints with a filler cord and filled with resin (surcharge)</td>
</tr>
<tr>
<td>Torsion ≤ kg/cm² 100</td>
<td>reinforced with mesh or fibres</td>
<td>Separation from the structure</td>
<td>In several steps</td>
<td>(surcharge)</td>
</tr>
<tr>
<td>Usage ≤ 5.5 cm³/50 cm³</td>
<td>Depending on the project</td>
<td>Rolling and wetting with</td>
<td>Rolling and wetting with</td>
<td>(surcharge)</td>
</tr>
<tr>
<td></td>
<td>Workability according to the application table</td>
<td>Resistance between</td>
<td>Resistance between</td>
<td>(surcharge)</td>
</tr>
<tr>
<td></td>
<td>(See reference table)</td>
<td>K ≥ 10/25 kg/cm³</td>
<td>K ≥ 10/25 kg/cm³</td>
<td></td>
</tr>
</tbody>
</table>

**SURCHARGES**
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.

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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 (ll) 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 - 3.0 mm
In a ratio of 10-12 kg per m². Mixed with water with 7Kg of cement per m². 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/m² 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.

<table>
<thead>
<tr>
<th>DURSIL M</th>
<th>DURSICAL M</th>
<th>BARRIER</th>
<th>STABILISED</th>
<th>JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression &lt; kg/cm² 870</td>
<td>Concrete ≥ RC 35</td>
<td>Polyethylene sheet on top</td>
<td>STABILISED SOIL in several steps</td>
<td>Sealed cut joints with a filler cord and filled with resin (surcharge)</td>
</tr>
<tr>
<td>Torsion &lt; kg/cm² 120</td>
<td>Reinforced with mesh or fibres</td>
<td>Separation from the structure</td>
<td>Rolling and wetting with</td>
<td></td>
</tr>
<tr>
<td>Usage &lt; 4,5 cm³/50 cm³</td>
<td>Depending on the project. Workability according to the application table</td>
<td>(See reference table)</td>
<td>Resistance between</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>K ≥ 10/25 kg/cm³</td>
<td></td>
</tr>
</tbody>
</table>

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

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DESCRIPTION
High strength flush monolithic floor with concrete load bearing plate.
Application Terminology: “Facing” obtained by applying an anti-wear surface layer as a mortar of approx. 10mm on DURSICAL 5-10 concrete layer of between 5 and 10 cm thickness of 5 to 10mm. approx.

WHERE IT IS APPLIED
Flush monolithic flooring. Welded to the concrete load bearing plate. 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 consistency and bearing of the existing concrete screed.
2) A failure to plan for the appropriate thickness, type of concrete and reinforcement used (premature wear, damage to construction joints, cracks in the slabs).
3) Failure to use DURSICAL 5-10 concrete (crumbling, pitting, cavities, cracked state and warping.)

NOTE:
The flooring is polished and may be 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 5-10 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 m². Mixed with water and 7Kg of cement per m². The compound is applied as mortar on fresh concrete and then finished.

B) Levelling concrete plate
DURSICAL 5-10 concrete plate with a thickness of between 5 and 10cm. (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) EXISTING CONCRETE PLATE
Existing cured concrete plate Cleaned of any impurities using mechanical equipment that roughens the surface.

D) SUPPORTING BASE
Soil stabilised using the Westergaard method
DURSIL Art 5-10 MONOLITHIC FLOORING TECHNICAL DATA SHEET

SUPPORTING CONCRETE PLATE
Clean the plate using mechanical equipment to roughen the surface.

FLOORING COMPOSITION
1) DURSIL 5-10 surface layer with a thickness of approx. 10mm.
2) DURSICAL 5-10 concrete plate with a thickness of between 5 and 10cm
3) SUPPORTING CONCRETE PLATE
4) Stabilised load bearing soil

Load bearing weight of the flooring with respect to the project is variable from 2,000 to 4,000kg/m² with a static load.

The surface layer is applied to the plate as “Fresh on Fresh” using a mortar method. The contraction joints are carried out use a mechanical cut of ordinary dimensions of 3 x 3 and filled with PVC or sealed with resin.

The flooring must be isolated from elevated structures.

<table>
<thead>
<tr>
<th>DURSIL 5-10</th>
<th>DURSICAL 5-10</th>
<th>ENCOURAGES ADHESION</th>
<th>SUPPORT</th>
<th>JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression &lt; kg/cm² 870</td>
<td>Concrete &gt; RC 40</td>
<td>Application of appropriate adhesion primer</td>
<td>CONCRETE PLATE</td>
<td>Sealing the joints</td>
</tr>
<tr>
<td>Torsion &lt; kg/cm² 120</td>
<td>Reinforced with fibre</td>
<td></td>
<td>Existing, load bearing, roughened and cleaned</td>
<td>Sawn with the application of filler cord and filled with resin (surcharge)</td>
</tr>
<tr>
<td>Usage &lt; 3,5 cm²/50 cm²</td>
<td>Depending on the project</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

STABILISED SOIL

SURCHARGES
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 cement and quartz mortar.
2-3 Construction joints using metal joints applied at the time the floor is laid.

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DESCRIPTION
Medium strength, structural monolithic floor on a load bearing concrete plate or structure.
Application Terminology: "FACING" obtained by applying the anti-wear surface layer as a dry shake of approx.3mm on a DURSICAL 10-15 concrete layer of between 10 and 15cm thickness.

WHERE IT IS APPLIED
Newly constructed monolithic floor laid on a load bearing concrete plate or prefabricated structure. 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 bearing of the support slab.
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 10-15 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 10-15 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 m² Dry mixed with 2Kg of cement per m².
The compound is applied as a dry shake on fresh concrete and then finished.

B) LOAD BEARING CONCRETE PLATE
DURSICAL 10-15 concrete plate with a thickness of between 10 and 15cm.
(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
Pre-existing plate or prefabricated structure.
SUPPORTING BASE
An existing base which may be a concrete plate or support structure.

FLOORING COMPOSITION
1) Surface layer of DURSIL 10-15 with a thickness of approx. 3mm.
3) Existing support.

Load bearing weight of the flooring with respect to the project is variable from 1,000 to 3,000kg/m² with a static load.
Flooring weight Kg. 220-250 kg per m².
The surface layer is applied to the plate as “Fresh on Fresh” using a dry shake method. The contraction joints are carried out using a mechanical cut of ordinary dimensions of 3 x 3 and filled with PVC or sealed with resin. The flooring must be isolated from elevated structures.

<table>
<thead>
<tr>
<th>DURSIL 10-15</th>
<th>DURSICAL 10-15</th>
<th>BARRIER</th>
<th>SUPPORT</th>
<th>JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression ≤ kg/cm² 650</td>
<td>Concrete ≥ RC 35</td>
<td>Polyethylene sheet on top</td>
<td>CONCRETE PLATE</td>
<td>Sealing the sawn joint</td>
</tr>
<tr>
<td>Torsion ≤ kg/cm² 100</td>
<td>Reinforced with mesh or fibres</td>
<td>Separation from the structure in elevation</td>
<td>On a pre-fabricated structure</td>
<td>With use of a filler cord and filled with resin (surcharge)</td>
</tr>
<tr>
<td>Usage ≤ 5.5 cm³/50 cm³</td>
<td>Depending on the project</td>
<td>(See reference table)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 CV 4 - Joint MF

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DESCRIPTION
Medium strength, structural monolithic floor on a prefabricated structure.
Application Terminology: "FACING" obtained by applying the surface layer as a dry shake of approx. 3mm on a DURSICAL Light concrete of between 10 and 15cm thickness.

WHERE IT IS APPLIED
Newly constructed monolithic floor. On a pre-fabricated structure.
Suitable for loads (I) and operations (L) [See DIN Standard 1100].
Flooring slab, car parks etc..

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

WEAKNESSES
Any issues may be caused by:
1) Inadequate bearing of the support slab.
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 Light 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 Light 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 m². Dry mixed with 2Kg of cement per m²
The compound is applied as a dry shake on fresh concrete and then finished.

B) LOAD BEARING CONCRETE PLATE
DURSICAL Light concrete plate with a thickness of between 10 and 15cm.
(Light weight concrete which is formulated and reinforced to achieve the performance required by the design of the project. Resistance, durability and controlled shrinkage are basic elements of DURSICAL.) Thickness and reinforcement according to the design project.

C) SEPARATION BARRIER
PVC isolation layer between the base and the flooring. Separation from the elevated structures.

D) SUPPORTING BASE
Pre-existing plate or prefabricated structure.
DURSIL Light MONOLITHIC FLOORING TECHNICAL DATA SHEET

SUPPORTING BASE
Pre-existing plate or prefabricated structure

FLOORING COMPOSITION
1) Surface layer with a thickness of Approx. 3mm.
2) DURSICAL LIGHT, Lightweight concrete plate of between 10 and 15cm.
3) Existing support

Load bearing weight of the flooring with respect to the project is variable from 500 to 1,000kg/m² with a static load. Flooring weight Kg. 150-200 kg per m²

The surface layer is applied to the 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 3 x 3 and filled with PVC or sealed with resin.

The flooring must be isolated from elevated structures.

SURCHARGES
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) DURSIL Light anti-wear surface layer.
2) Reinforced light-weight DURSICAL Light concrete plate according to the project.
3) PVC damp proof barrier
4) Support base
5) Sealed joint

<table>
<thead>
<tr>
<th>DURSIL Light</th>
<th>DURSICAL Light</th>
<th>BARRIER</th>
<th>SUPPORT</th>
<th>JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression &lt; kg/cm² 650</td>
<td>Concrete Light weight &gt; RC 35</td>
<td>Polyethylene sheet on top Separation from the structure in elevation</td>
<td>Concrete plate or on n a prefabricated structure</td>
<td>Sealing sawn joints. using a filler cord and filled with resin (surcharge)</td>
</tr>
<tr>
<td>Torsion &lt; kg/cm² 100</td>
<td>reinforced with mesh or fibres depending on the project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usage &lt; 5,5 cm³/50 cm³</td>
<td>Workability according to the application table (See reference table)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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DESCRIPTION
Prefabricated floor to be laid on existing plate with mortar.
Tile consisting of a surface layer of a thickness of approx. 10mm and 20mm of a high dose sand and cement mortar.

WHERE IT IS APPLIED
Tiled prefabricated floor Laid on an existing plate.
Suitable for loads (II) and operations (M-P). (See DIN Standard 1100).
Heavy industry, offices, inspection pits, car parks etc..

STRENGTHS
A high strength vibro compressed floor.

WEAKNESSES
Any issues may be caused by:
1) Damage caused by poor tile application to the mortar with subsequent separation.

NOTE:
The floor can be colored, buffed, polished insitu to highlight the chips and sealed to give it shine.
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 Tile monolithic industrial flooring comprising:
A) TILES
   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 3.0mm, with a thickness of approx. 10mm.
   A layer with high sand and cement content of a thickness of approx. 20mm.
B) MORTAR CONCRETE
   Sand and cement mortar at 400kg per cubic metre with a thickness of approx. 30/60Mm.
   Mix the mortar in a horizontal pan.
C) EXISTING CONCRETE PLATE
   Existing, cured concrete plate, clean from all impurities and moisture before laying.
D) SUPPORTING BASE
   Soil stabilised using the Westergaard method.
**SUPPORTING CONCRETE PLATE**
Clean the plate and keep the surface moist.

**FLOORING COMPOSITION**
1) **DURSIL Tiles** (cm 25x25x2.7)-(cm 30x30x3.3)-(cm 33x33x3.5)-(cm 40x40x3.9).
2) Cement based mortar of approx. 30mm thickness.
3) **SUPPORTING CONCRETE PLATE**

Load bearing weight of the flooring with respect to the project is variable from 5,000 to 8,000kg/m² with a static load. The flooring is laid on a concrete plate. The joints are carried out by inserting rigid PVC rods sized to fit 15 x 15ml. Weight per m² kg 70 (only tile).

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) DURSIL Tiles</strong></td>
<td><strong>2) High dose cement mortar</strong></td>
<td><strong>3) Rigid PVC joint</strong></td>
<td><strong>4) Supporting concrete plate</strong></td>
</tr>
</tbody>
</table>

**TILES**
Impact resistance kg·m 0.45.
Usage coefficient:
According to the tribometer
(1000 metres) mm 3.9
(500 metres) mm 1.9

**BED OF MORTAR**
Mixture of gritty sand
Nd cement in a ratio of
Of 400kg per cubic metre
The tile is laid
Putting it into the mortar

**SUPPORTING PLATE**
CONCRETE PLATE
Existing and load bearing

**JOINT**
Rigid PVC profiles
To separate the laid sections
applied

**SURCHARGES**
A surcharge is made for base colours.
COVERSIP Surface treatment (part of the CHEMIDUR range) neutral, coloured, added shine.

The colours and chips are only for illustrative purposes.

Tiles for ramps  Yellow tile  Red tile  Grey tile

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DESCRIPTION
Prefabricated floor to be laid on a bed of compacted soil and sand. Plate consisting of an anti-wear surface layer of a thickness of approx. 10mm and 14cm in reinforced concrete with metal edges.

WHERE IT IS APPLIED
Reinforced, prefabricated plate floor. Laid on a bed of sand. Suitable for loads (II) and operations (M-P) (See DIN Standard 1100). Heavy industry, offices, highly trafficked spaces.

STRENGTHS
A high strength prefabricated floor.

WEAKNESSES
Any issues may be caused by:
1) Poor bedding in of the plate on sand.

NOTE:
The flooring can be easily removed and reused.

SPECIFICATION FOR THE DESIGN
DURSIL Lastrystem 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 3.0mm for a thickness of approx. 10mm.

B] CONCRETE PLATE
Concrete plate measured at 400kg per cubic metre with a thickness of approx. 14cm. reinforced with fibres or mesh

C] FOUNDATION
A 5 to 10cm thick bed of sand

D] SUPPORTING BASE
Soil stabilised using the Westergaard method
STABILISED SOIL
Excellent compaction of the load bearing soil by rolling in several stages.

FLOORING COMPOSITION
1) DURSIL Lastrosystem plate of a thickness of 15cm.
2) A 5 to 10cm thick bed of sand
3) STABILISED SOIL

Load bearing weight of the flooring is variable from 5,000 to 8,000kg/m² with a static load.
The flooring is laid on a bed of sand. The joints between the sheets are filled with sand.
Weight of the plate approx. 1500kg.
DESCRIPTION
This treatment is performed by applying a layer of COVERSIP (epoxy resins suspended in water and mineral fillers) as a film layer to a concrete plate which is smooth and free from defects.

WHERE IT IS APPLIED
Protective applications for cement based supports. Used in car parks, large sheds, warehouses etc...

STRENGTHS
It is a cost effective surface treatment that is easy to apply with excellent mechanical and protective properties.

WEAKNESSES
Any issues may be caused by:
Poor surface strength of the concrete, lack of a smooth surface, pitting and surface defects.

NOTE
The treatment may be coloured or neutral in colour. May be additionally treated with polyurethane.

SPECIFICATION FOR THE DESIGN
COVERSIP coating composed of:
A) Preparation of the laying surface by sanding the surface with a special machine equipped with rotating discs abrasive and aspiration of dust.

B) Mixing of packets composed of a base [jar A] and a hardener [B jar] fitted with a drill and a special whip and adding water to make up approx. 5% -10% of the total weight of the resin to obtain an emulsion which is uniform in colour.

C) Two coatings of COVERSIP must be applied by mixing 120/150gr per coating, applied either using a roller or a sprayer, allowing at least 24 hours between applications. Application time: approx. 30 minutes
PREPARATION OF THE SUPPORTING BASE
Carefully preparation the concrete surface so it is smooth and defect free. Sanding and cleaning.

FLOORING COMPOSITION
1) Surface layer of COVERSIP
2) A reinforced smooth concrete plate
3) Stabilised load bearing soil

The flooring must be isolated from elevated structures.

<table>
<thead>
<tr>
<th>COVERSIP</th>
<th>SUPPORT</th>
<th>BARRIER</th>
<th>STABILISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>1.33 g/mc</td>
<td>Concrete &gt; RC 30</td>
<td>STABILISED SOIL</td>
</tr>
<tr>
<td>Viscosity at 20°</td>
<td>1500 mPa.s</td>
<td>Reinforced with mesh or fibres</td>
<td>In several steps</td>
</tr>
<tr>
<td>Pot-life 20°</td>
<td>approx. 60min</td>
<td>depending on the project</td>
<td>Rolling and wetting with</td>
</tr>
<tr>
<td>Adhesion to the cls.</td>
<td>&gt; 3.5 mPa.s</td>
<td>Usage in accordance with</td>
<td>Resistance between</td>
</tr>
<tr>
<td>Dry residue</td>
<td>56% in weight</td>
<td>the application table</td>
<td>K ≥ 10/25 kg/cm²</td>
</tr>
<tr>
<td>Usage</td>
<td>approx. 200g/m² by hand, thickness of approx. 80 Um</td>
<td>(See reference table)</td>
<td></td>
</tr>
<tr>
<td>Dry to the touch</td>
<td>6 hours</td>
<td>Best used on</td>
<td>DURSIL S FLOORS</td>
</tr>
<tr>
<td>Walkable</td>
<td>in approx. 45 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardened off</td>
<td>7 days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SURCHARGES
A surcharge is made for an additional polyurethane treatment. RAL Colours

Base colours for illustrative purposes only.
DESCRIPTION
Monolithic floor with medium strength on an underlying plate. Thickness of approx. 1.5-3.0mm of multi-layer synthetic resin applied to the concrete plate which is completely dry and has been roughened mechanically.

WHERE IT IS APPLIED
Suitable for loads (I) and operations (L) (See DIN Standard 1100) Food industries, wine industries, oil mills, slaughterhouses etc...

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

WEAKNESSES
Any issues may be caused by:
1) A lack of a damp proof course or barrier between the subfloor and the concrete slab.
2) A failure to plan for the appropriate thickness, type of concrete and reinforcement used. Incorrect sizing of the plates with respect to loads and anticipated movement.

NOTE:
The flooring is smooth and may be coloured.

SPECIFICATION FOR THE DESIGN
CHEMIDUR FX monolithic industrial flooring comprising:
A) PREPARATION
Prepare the application surface by using mechanical equipment and dust extraction
B) SURFACE LAYER
Application of epoxy and quartz primer. A mixture based on spheroidal quartz and hard minerals with a homogeneous granulometric curve of between 0.125 and 1.5mm and synthetic resins with two coats of quartz dusting allowing at least 24 hours between each coat and final saturation.
C) LOAD BEARING CONCRETE PLATE
Cured concrete plate
(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.
D) SEPARATION BARRIER
PVC isolation layer between the base and the flooring. Separation from the elevated structures
E) SUPPORTING BASE
Soil stabilised using the Westergaard method
CHEMIDUR FX 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) CHEMIDUR FX surface layer with a thickness of approx. 1.5-3.0mm.
2) DURSICAL reinforced concrete plate
3) Damp proof barrier
4) Stabilised load bearing soil

Load bearing weight of the flooring with respect to the project is variable from 2,000 to 4,000kg/m² with a static load.
The flooring must be isolated from elevated structures.

1) CHEMIDUR FX anti-wear surface layer.
2) Reinforced concrete plate according to the project
3) PVC damp proof barrier
4) Soil stabilised using the Westergaard method.

CHEMIDUR FX
<table>
<thead>
<tr>
<th>Properties</th>
<th>DURSICAL</th>
<th>BARRIER</th>
<th>STABILISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression &gt; 60 MPa</td>
<td>Concrete &gt; RC 30 Reinforced with mesh or fibres Depending on the project Completely dry And roughened mechanically</td>
<td>Polyethylene sheet on top Separation from the structure In elevation</td>
<td>STABILISED SOIL In several steps Rolling and wetting with Resistance between $K &gt; 10/25$ kg/cm³</td>
</tr>
<tr>
<td>Flexion &gt; 25 MPa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traction &gt; 30 MPa</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Surcharges
A surcharge is made for base colours.

Base colours and rough finish for illustrative purposes only.

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DESCRIPTION
Monolithic floor with medium strength on an underlying plate. Thickness of approx. 1.5-3.0mm of self-levelling synthetic resin applied to the concrete plate which is completely dry and has been roughened mechanically.

WHERE IT IS APPLIED
Suitable for loads (l) and operations (L) (See DIN Standard 1100) Food industries, laboratories, hospitals etc...

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

WEAKNESSES
Any issues may be caused by:
1) A lack of a damp proof course or barrier between the subfloor and the concrete slab.
2) A failure to plan for the appropriate thickness, type of concrete and reinforcement used.
3) Incorrect sizing of the plates with respect to loads and anticipated movement.

NOTE:
The flooring is smooth and may be coloured.

SPECIFICATION FOR THE DESIGN
CHEMIDUR SP industrial monolithic flooring composed of:
A) PREPARATION
  Prepare the application surface by using mechanical equipment and dust extraction.
B) SURFACE LAYER
  Application of epoxy and quartz primer.
  A mixture based on spheroidal quartz and hard minerals with a homogeneous granulometric curve and synthetic resins, applied with a notched trowel and finished with a spiked roller to remove surface bubbles.
C) LOAD BEARING CONCRETE PLATE
  Cured concrete plate
  (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.
D) SEPARATION BARRIER
  PVC isolation layer between the base and the flooring. Separation from the elevated structures.
E) SUPPORTING BASE
  Soil stabilised using the Westergaard method.
CHEMIDUR SP ANTI-STATIC 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) CHEMIDUR CE Anti-static surface layer with a thickness of approx. 1.5-3.0mm.
2) DURSICAL reinforced concrete plate
3) Damp proof barrier
4) Stabilised load bearing soil

Load bearing weight of the flooring with respect to the project is variable from 2,000 to 4,000kg/m² with a static load.

The flooring must be isolated from elevated structures.

---

1) CHEMIDUR SP anti-static, anti-wear surface layer.
2) Reinforced concrete plate according to the project.
3) PVC damp proof barrier
4) Soil stabilised using the Westergaard method.

<table>
<thead>
<tr>
<th>CHEMIDUR SP</th>
<th>DURSICAL</th>
<th>BARRIER</th>
<th>STABILISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression = &gt; 60 MPa</td>
<td>Concrete ≥ RC 30</td>
<td>Polyethylene sheet on top</td>
<td>STABILISED SOIL</td>
</tr>
<tr>
<td>Flexion = &gt; 25 MPa</td>
<td>Reinforced with mesh or fibres</td>
<td>Separation from the structure</td>
<td>In several steps</td>
</tr>
<tr>
<td>Traction = &gt; 30 MPa</td>
<td>Depending on the project</td>
<td>In elevation</td>
<td>Rolling and wetting with</td>
</tr>
<tr>
<td></td>
<td>Completely dry</td>
<td></td>
<td>Resistance between</td>
</tr>
<tr>
<td></td>
<td>And roughened mechanically</td>
<td></td>
<td>K &gt; 10/25 kg/cm³</td>
</tr>
</tbody>
</table>

SURCHARGES

A surcharge is made for base colours.

Base colours for illustrative purposes only.

Micronised base colours for illustrative purposes only.

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DESCRIPTION
High strength monolithic floor flush with the underlying plate.
Thickness of approx. 10mm of synthetic resin mortar applied to the concrete plate which is completely dry and has been roughened mechanically.

WHERE IT IS APPLIED
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) A lack of a damp proof course or barrier between the subfloor and the concrete slab.
2) A failure to plan for the appropriate thickness, type of concrete and reinforcement used.
3) Incorrect sizing of the plates with respect to loads and anticipated movement.

NOTE:
The flooring can be smoothed and coloured.

SPECIFICATION FOR THE DESIGN
CHEMIDUR ST monolithic industrial flooring comprising:
A) PREPARATION
Prepare the application surface by using mechanical equipment and dust extraction
B) SURFACE LAYER
    Application of epoxy primer.
    Laying a mixture based on spheroidal quartz and hard minerals with a homogeneous granulometric curve of between 0.125 and 3.0mm mixed with synthetic resins in a ration of 1:10 (resin to aggregate) smoothed and a finishing coat applied to seal the porous surface.
C) LOAD BEARING CONCRETE PLATE
Cured concrete plate
(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.
D) SEPARATION BARRIER
PVC isolation layer between the base and the flooring. Separation from the elevated structures.
E) SUPPORTING BASE
Soil stabilised using the Westergaard method
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) CHEMIDUR ST surface layer with a thickness of approx. 0.8 - 15 mm
2) Reinforced DURSICAL concrete plate
3) Damp proof barrier
4) Stabilised load bearing soil

Load bearing weight of the flooring with respect to the project is variable from 5,000 to 10,000kg/m² with a static load.
The flooring must be isolated from elevated structures.

<table>
<thead>
<tr>
<th>CHEMIDUR ST</th>
<th>DURSICAL</th>
<th>BARRIER</th>
<th>STABILISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression &lt; kg/cm² 1200</td>
<td>Concrete ≥ RC 30 Reinforced with mesh or fibres Depending on the project Completely dry And roughened mechanically</td>
<td>Polyethylene sheet on top Separation from the elevated structures</td>
<td>Soil stabilised by rolling in several stages and wetting with Resistance between K ≥ 10/25 kg/cm²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACIDS</th>
<th>WATER</th>
<th>SALTS-ALKALI</th>
<th>ORGANICS</th>
<th>SOLVENTS</th>
<th>KETONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid, 10%</td>
<td>Water at 100%</td>
<td>Sodium hydroxide 25%</td>
<td>Formaldehyde 30%</td>
<td>Crude oil</td>
<td>Acetone 100%</td>
</tr>
<tr>
<td>Hydrochloric acid 10%</td>
<td>Distilled water</td>
<td>Sodium bicarbonate 25%</td>
<td>Ethanol 50%</td>
<td>petroleum</td>
<td>chloroform</td>
</tr>
<tr>
<td>Sulphuric acid 30%</td>
<td>Marine water</td>
<td>Sodium carbonate 5%</td>
<td>benzal</td>
<td>kerosene</td>
<td>Pafinic oil</td>
</tr>
<tr>
<td>Nitric acid 10%</td>
<td>Saline solution</td>
<td>Calcium sulphate 100%</td>
<td>toluene</td>
<td>Diesel oil</td>
<td>Heavy crude oil</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td></td>
<td>Magnesium sulphate 100%</td>
<td>xylene</td>
<td>kerosene</td>
<td>Motor oil</td>
</tr>
<tr>
<td>Tartaric acid 10%</td>
<td></td>
<td>Barium chloride 100%</td>
<td>Diesel oil</td>
<td></td>
<td>Edible oil</td>
</tr>
<tr>
<td>Maleic acid 10%</td>
<td></td>
<td>Potassium chloride 100%</td>
<td>Benzal</td>
<td></td>
<td>Formaldehyde, 40% in water</td>
</tr>
<tr>
<td>Chromic acid 10%</td>
<td></td>
<td>Sodium chloride 100%</td>
<td>toluene</td>
<td></td>
<td>glycerine</td>
</tr>
<tr>
<td>Lactic acid 2%</td>
<td></td>
<td>potassium dichromate 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gallicic acid 10%</td>
<td></td>
<td>Sodium bisulphate 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

S.I.P.I. Nord S.r.l.
I 00191 Roma - Corso Francia 183 - Tel. +39 06 36381299 - Fax +39 06 36382132
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DESCRIPTION
Monolithic floor with medium strength on an underlying plate. Thickness of approx. 1.5-3.0mm self-levelling, antistatic resin applied to the concrete plate which is completely dry and has been roughened mechanically.

WHERE IT IS APPLIED
Suitable for loads (I) and operations (L) (See DIN Standard 1100) Electronic industries, laboratories, operating theatres, clean rooms, explosive environments, areas with magnetic guides etc...

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

WEAKNESSES
Any issues may be caused by:
1) A lack of a damp proof course or barrier between the subfloor and the concrete slab.
2) A failure to plan for the appropriate thickness, type of concrete and reinforcement used.
3) Incorrect sizing of the plates with respect to loads and anticipated movement.

NOTE:
The flooring is smooth and may be coloured.

SPECIFICATION FOR THE DESIGN
CHEMIDUR CE monolithic industrial anti-static flooring is composed of:

A) PREPARATION
Prepare the application surface by using mechanical equipment and dust extraction

B) SURFACE LAYER
Application of epoxy and quartz primer. Provision of copper strips connected to the earth.
A mix of special conductive aggregates on a homogeneous granulometric curve and synthetic resins, applied with a notched trowel and finished with a spiked roller to remove surface bubbles.

C) LOAD BEARING CONCRETE PLATE
Cured concrete plate
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.

D) SEPARATION BARRIER
PVC isolation layer between the base and the flooring. Separation from the elevated structures.

E) SUPPORTING BASE
Soil stabilised using the Westergaard method
CHEMIDUR CE ANTI-STATIC 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) CHEMIDUR CE Anti-static surface layer with a thickness of approx. 1.5-3.0mm.
2) DURSICAL reinforced concrete plate
3) Damp proof barrier
4) Stabilised load bearing soil
Load bearing weight of the flooring with respect to the project is variable from 2,000 to 4,000kg/m² with a static load. The flooring must be isolated from elevated structures.

<table>
<thead>
<tr>
<th>CHEMIDUR CE</th>
<th>DURSICAL</th>
<th>BARRIER</th>
<th>STABILISED</th>
</tr>
</thead>
</table>
| Compression=$> 100$ MPa  
Flexion$> 40$ MPa  
Abrasivel wheel CS 17 at 1,000 RPM < 80 mg.  
Surface dispersion $10^1$ - $10^11$ Ω/m² | Concrete > RC 30  
Reinforced with mesh or fibres Depending on the project  
Completely dry  
Androughened mechanically | Polyethylene sheet on top Separation from the structure In elevation | STABILISED SOIL 
In several steps  
Rolling and wetting with Resistance between $K > 10/25$ kg/cm³ |

SURCHARGES
A surcharge is made for base colours.

Bas colours for illustrative purposes only.

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