SOUPLETHANE 5 CORE

TWO COMPONENT POLYURETHANE PROTECTIVE COATING

PURPOSE
- Water-proofing of pools storing chemical effluents, chemical retentions, storage tanks of chemical products.

PROPERTIES
- Waterproofing film without joints and without holidays
- Good resistance to mechanical shocks, can bridge cracks up to 3, 5 mm in concrete for a 2 mm thick film.
- Resistant to U.V. rays (no chalking). To keep the colour stability to U.V. rays, apply the P.U. aliphatic finishing SOUPLETHANE 750
- Strong bonding on any substrate (concrete : 3 Mpa, steel: 7 Mpa without primer and 15 Mpa with primer P 111)
- Good resistance to corrosion (Ph from 1 to 13)
- Good resistance to thermal shocks (from –50°C to + 130°C)

ADVANTAGES
- Applied by normal brushing technique and sprayed through high pressure twin component airless spraying equipment.

Application Parameters :
- component A viscosity : 4 000 cps
- component B viscosity : 400 cps

Components Temperature:
- component A : 35°C
- component B : 20°C
- pressure : 180 / 200 bars
- pot life at 20°C : 23 mn

TECHNICAL SUPPORT
Rezcoat provides technical service support, to professional bodies, consulting Engineers, specifying bodies and on-site contractors, and applicators throughout the Middle-East.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Colour</th>
<th>grey, cream, green or others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of Polymer</td>
<td>Polyurea - urethane</td>
</tr>
<tr>
<td>Components number</td>
<td>2 (without solvent)</td>
</tr>
<tr>
<td>Mixing ratio</td>
<td>2 : 1 in volume</td>
</tr>
<tr>
<td>Dry content</td>
<td>100 %</td>
</tr>
<tr>
<td>Density</td>
<td>1.1 kg/lit</td>
</tr>
<tr>
<td>Flashpoint: component A</td>
<td>248°C</td>
</tr>
<tr>
<td>Bond Strength on steel</td>
<td>15 Mpa</td>
</tr>
<tr>
<td>Bond Strength on concrete</td>
<td>3,5 Mpa</td>
</tr>
<tr>
<td>Service temperature In air</td>
<td>Fr. - 50 °C to + 130 °C</td>
</tr>
<tr>
<td>In immersion</td>
<td>95 °C (water)</td>
</tr>
<tr>
<td>Shrinkage</td>
<td>Zero</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>22 Mpa</td>
</tr>
<tr>
<td>Elongation</td>
<td>65 %</td>
</tr>
<tr>
<td>Shore hardness D</td>
<td>72</td>
</tr>
<tr>
<td>Pot Life</td>
<td>23 mn</td>
</tr>
<tr>
<td>Compression strength</td>
<td>113 Mpa</td>
</tr>
<tr>
<td>Chlorides</td>
<td>&lt; 6 coulombs</td>
</tr>
<tr>
<td>Permeability ASTM C 1702</td>
<td>No penetration</td>
</tr>
<tr>
<td>Water Permeability DIN 1048</td>
<td>No penetration</td>
</tr>
<tr>
<td>Resistance to salt spray ASTM B117</td>
<td>2000 hours</td>
</tr>
<tr>
<td>ASTM D1654</td>
<td></td>
</tr>
<tr>
<td>Resistance to back pressure</td>
<td>1 Mpa</td>
</tr>
</tbody>
</table>

Revised 20/06/12
SURFACE PREPARATION

FOR CONCRETE
The surface should be free of contamination, well cured, solid, dry with surface moisture <5% and free of laitance, dust, loose particles, foam oil and release agent or any other type of chemical. Clean any contamination with steam, degreaser as appropriate. Deep contaminations by means of mechanical blasting, scrubbing or other means. Protrusions/ridges, rout out surface cracks and cut V-grooves, clean the surface of all loose particles and dust, fill all exposed blowholes, routed out cracks with Resiputty 050 EP.

FOR STEEL
The surface should be free of contamination and prepared to (Sa2½) of SIS 05-5900. Use of steam water or degreaser to clean contamination. For corrosion and scales abrasive blast should be used, if not possible use brush or grinder, prevent polishing metal surface. Grind, cut any protrusion/ridges to remove weld slag and splatter. Render pitted steel surface including damaged regions with Resiputty 050 EP. Cold welding to close holes using Souplethane, Thin coat pressing a piece of steel and leave to cure for few hours.

PRIMING
For concrete use: Souplethane Concrete Primer C111. Mix the primer thoroughly before application. The surface to receive primer should be well vacuumed. Ambient temperature should be about +5°C. Apply the primer at a rate 6 to 8m²/ltr. To saturate the substrate to be coated with Souplethane 5 Core. Allow the primer dry prior to apply the coating.

For Steel Surfaces:
Mix the Souplethane Steel Primer P111 or P112 thoroughly before application. Immediately apply over well prepared surface at temperature >3°C above dew point in one thin layer (about 30 to 50 microns) by brush roller or single component air spray. Over coating time after touch dry to be at maximum of 8 hours. Beyond this limit, abrasive blast, remove the primer and reapply.

APPLICATION
1. Souplethane 5 Core shall be applied when ambient temperature is above -10°C or below 50°C, and relative humidity is below 90% and air temperature is 3°C above dew point. Protect the area to be coated from direct sunlight by suitably erecting sunshades or by other means to allow proper wetting of the surface, avoid rapid curing. On a given day, the area of coating must be defined such that all coats necessary to achieve the required thickness are done preferably the same day within the maximum inter-coat interval. In summer, program activity during cool parts of the day.

2. Mix thoroughly the base separately using power mixer, then mix proportioning three parts of Base by adding one part of Hardener and then mix the two components for about 1 minute to a uniform color.

3. Apply Souplethane 5 Core by brush, roller and squeegee or by twin airless spray machine. Apply the first coat in a thin layer 250 to 300 microns with a brush or roller. After the first coat, apply subsequent coats in one or more layers to achieve the required thickness. Over coating shall be completed within the inter-coat interval as detailed below:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Over coating Period (Min hours)</th>
<th>(Max hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20°C</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>30°C</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>50°C</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Additionally, to increase the pot life under extremely hot conditions, cool the hardener before mixing. The base should be conditioned at 27°C (air-conditioned) prior to mixing for optimum pot life.

4. At discontinuities/singularities, such as pipe upstand, penetrations, skirting, rivets, bolts, etc. impregnate into a freshly applied first coat of Souplethane 5 Core a band 15-20 cm wide of fiber cloth and cover this completely by subsequent layer of Souplethane 5 Core.

5. If additional antiskid finish is required, apply on the dry first layer, another coat (approx. 500 to 800 microns) then immediately broadcast dry, clean sand aggregate up to 0.8mm in size. Allow to dry,
then vacuum excess sand and apply a final thin layer to seal sand grain in.

Reinforcement with Fiberglass:
The tensile strength and crack bridging capability of the product can be enhanced by use of Fiberglass reinforcement.
In this case into the first topcoat, while wet embed the fiberglass reinforcing by pressing into the wet layer, without waves being allowed to develop in the cloth, and edging shall be particularly well pressed in. A second coat is then applied onto the surface to fill over the undulations in the cloth. The cloth shall consist of a weight at least 75 to 110 gm per square meter.
All edges shall be well wetted to ensure that overlaps are completely embedded and no penetration lines developed.
The coatings can be applied up to 5mm as demanded by the application specification.

PACKAGING
Souplethane 5 Core 36 kg / pail

Coverage
Souplethane Primer
C111
Concrete coverage rate 6-8m² / ltr.

Souplethane Primer
P111/P112
Steel coverage rate 15-20m² / ltr.
Resiprime Solvent SC111 18 ltrs. / pail

CLEANING
Tools and equipment should be cleaned with Resiprime SC111 cleaning solvent. Do not use the solvent for thinning, as it will inhibit the material properties.

STORAGE
The product should be kept in original unopened containers away from direct source of heat in shaded area at a temperature below 30ºC. Souplethane 5 Core will have a shelf life in excess of 12 months. If stored at lower temperatures with high humidity, the pot life may be reduced by half.

FIRE
Souplethane 5 Core and Resiprime Primers are non-flammable products. Resiprime Solvent SC111 is a flammable material. Avoid formation of flames and sparks.

HEALTH & SAFETY
Souplethane 5 Core, Resiprime Primers C111, P111, P112 and Resiprime Solvent SC111 should not come in contact with skin and eyes. Some people are sensitive to resin. Use chemical goggles, PVC gloves and barrier cream. Avoid contact with skin and eyes when handling the products. Do not use solvent for skin remover of resin; instead a cream remover must be used before it gets harden.

DISCLAIMER
This product is specially formulated and manufactured by Rezayat Protection Coatings Company Ltd (RPCCCL) and sold subject to its standard terms and conditions. The information presented herein is accurate to the best of our knowledge. All technical properties quoted forthwith are from laboratory prepared samples and RPCCL reserve the right to alter any of the detail herewith without notice. The users are advised to ensure they possess the latest issue of the datasheet. The information given must not be taken in any way to form a specification. RPCCL will not accept any liability for any consequent or incidental damage arising out of use of the product. All guarantees offered are limited to replacement of defective material only. The use of the products outside of RPCCL recommendation is under user own risk.

Rezayat Protection Coatings Company Ltd.
Head Office
P.O. Box 90, Al Khobar 31952, Saudi Arabia
Tel: +966 3 882 5700 Ext 4052, Fax: +966 3 882 6717
E-mail : coatings.team@rezayat.com.sa
www.rezcoat.com

Revised 20/06/12 SOUPLETHANE 5 CORE TDS Page 3 of 3