

# Kemcoat E43

High Chemical Resistant, Non-Toxic Solvent Free – Semi glossy Epoxy Coating

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| Description                                  | <b>Kemcoat E43</b> is two components, hygienic, chemical resistant, solvent free, polyamine high quality epoxy internal coating for contact with potable water tanks, walls and ceilings. Not subjected to direct UV-rays to avoid the yellowish surface phenomena of epoxy.<br><b>Kemcoat E43 is approved by the National Organization for Potable Water &amp; Sanitary Drainage for drinking water and sewerage applications</b>                                                                                                         |                                                                                 |
| Where to use                                 | <ul style="list-style-type: none"><li>• For heavy duty protective internal coatings for concrete</li><li>• Wooden floors</li><li>• Metal structures subjected to chemical attack</li><li>• Approved for contact with potable water</li><li>• Food processing and pharmaceutical</li></ul>                                                                                                                                                                                                                                                  |                                                                                 |
| Advantages                                   | <ul style="list-style-type: none"><li>• Certificate of approval Egyptian National Organization for water and sewage</li><li>• Due to non-sagging properties can be used for walls and ceilings</li><li>• An easy to clean tough glossy finish</li><li>• Very good resistance to a wide range of chemicals and corrosive vapors</li><li>• Non-toxic approved for food contact</li><li>• Excellent mechanical properties</li><li>• May be used as part of bridging lamination systems</li><li>• Excellent waterproofing resistance</li></ul> |                                                                                 |
| Properties                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 |
| Specific gravity                             | 1.57 ±0.06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                 |
| Solids content                               | 100% by volume                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LEED NC-2016, IEQC 4.2, LEM                                                     |
| Compressive strength                         | 33 – 36 N/mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | After 7 days – ASTM C579                                                        |
| Tensile strength                             | 10 – 12 N/mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Test after chemical resistance – ASTM D638<br>Sulphuric Acid 50% after 30 days  |
| Elongation %                                 | > 3%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Test after chemical resistance – ASTM D638<br>Sulphuric Acid 50% after 30 days  |
| Pull – off strength                          | 1.85 N/mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Test after chemical resistance – ASTM D7234<br>Sulphuric Acid 50% after 30 days |
| Abrasion resistance                          | 93.1 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CS10 – 1000g – 1000 cycles – ASTM D4060                                         |
| Flash point                                  | 145 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
| Application method                           | Airless spraying, roller or stiffed brush                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 |
| Pot life @ 23 °C                             | 40 Minutes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                 |
| Dry to recoat                                | 24 Hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |
| Fully cured                                  | 7 Days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
| Temperature resistance                       | + 80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                 |
| Water permeability                           | 1 bar (D.F.T 150 - 300 micron)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
| Chemical Resistance – at 23° C – for 30 days |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 |
| 1- Lactic acid 1%                            | • No effect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                 |
| 2- Sodium Hydroxide 50%                      | • No effect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                 |
| 3- Hydrochloride acid 20%                    | • No effect with color change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |
| 4- Sulphuric acid 50%                        | • No effect with color change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |

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| Surface Preparation    | <ul style="list-style-type: none"> <li>Concrete substrate: should be dry, clean and free from loose particles, oil and grease</li> <li>Steel substrate: Sandblast (Sa 2 ½), grit blast or any other efficient method (St 2) and ensure that all traces of rust are removed</li> <li>Moisture content must not be more than 4%</li> <li>Please refer to <b>PROKEM</b> technical office for further details on surface preparation and application procedure</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                        |
| Mixing                 | <ul style="list-style-type: none"> <li>Stir the contents of the resin (pack A) to disperse any settlement</li> <li>Add the hardener (pack B) and mix thoroughly until a uniform consistency is obtained</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Application            | <ul style="list-style-type: none"> <li>Concrete surfaces can be primed with (<b>Sealer E115</b> or <b>Sealer E43 – Wetseal</b> for green concrete) and leave to dry over night</li> <li>Metal surfaces can be primed with <b>Kemprim M</b> or <b>Kemprim ZP</b></li> <li>Apply the first coat of <b>Kemcoat E43</b> with a stiff brush or roller to obtain a continuous uniform thickness</li> <li>Apply the second coat within the recoating interval to achieve the maximum adhesion between the two coats</li> <li>Faster rates of applications are possible using airless spray equipment</li> <li>R.H. &lt;85%</li> <li>Recoating time is not more than 48 hours</li> </ul>                                                                                                                                                                                             |
| Cleaning               | Tools and equipment's should be cleaned with <b>Prosolve EP</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Theoretical coverage   | 0.3 Kg/m <sup>2</sup> at 200 microns D.F.T<br>A minimum of 2 coats are required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Packaging              | Two packs of. (A+B) 5 & 20 Kg Pails                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Shelf life & Storage   | <b>Kemcoat E43</b> has a shelf life of 12 months if kept in their original packaging in a dry condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Precautions            | <ul style="list-style-type: none"> <li><b>Kemcoat E43</b> may be applied at temperature down to 5 °C, and at lower temperature curing time will increase</li> <li>For cold weather application it is recommended to store <b>Kemcoat E43</b> in a warm warehouse and only removed immediately before application</li> <li>Accelerated heating methods are forbidden</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Health and Safety      | <ul style="list-style-type: none"> <li>Use gloves to avoid contact with skin</li> <li>If skin comes in contact, wash immediately with soap and water</li> <li>Do not use solvents</li> <li>Eye contamination must be immediately washed with water, then seek medical treatment</li> <li>Working areas should be well ventilated</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Additional Information | <p><b>PROKEM</b> provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure</p> <p><b>PROKEM</b> designs tailor made products should there be critical application that requires specific properties rather than our main range for our customer's satisfaction</p> <p><b>PROKEM</b> reserves the right to change the properties of its products</p> <p>All orders are accepted subject to our current term of sale &amp; delivery</p> <p>Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request</p> <p><b>PROKEM</b> extends technical services to include after-sales support to assist users in the proper handling of our products</p> |