

| CAT NO                                                                           | CAT                                   | UPDATE   | REF NO                                             |
|----------------------------------------------------------------------------------|---------------------------------------|----------|----------------------------------------------------|
| 6                                                                                | CC                                    | 02/27/25 | CC-UWG4                                            |
|  | Const.<br>Chemicals<br>-<br>UW Grouts |          | UnderW<br>Epoxy<br>Tile<br>Grout<br><br>Horizontal |



Formulating The Future®

EST. 1989



## PETROKEM WATER GUARD UWG-40®

### Underwater Tile Grout For **Submerged Horizontal** Surfaces

Petrokem WaterGuard UWG40® is a premium two-component epoxy system specifically engineered for application in submerged conditions on horizontal surfaces. This product is uniquely formulated for underwater use, primarily for filling tile grooves as a tile grout and is ideally suited for grouting granite, marble, ceramic, porcelain, terrazzo, mosaic, natural stone tiles, and similar materials. An outstanding feature of this product is its capability to perform grouting activities in submerged environments without necessitating water drainage. Application involves blending the resin and hardener components as a two-component system. To adjust viscosity or thickness, an appropriate quantity of FillerD® can be incorporated into the mixture. The cured product is a chemical-resistant, waterproof, durable material with a ceramic-like finish, suitable for both indoor and outdoor applications. It is highly recommended for grouting swimming pools, shower areas, ponds, and other water-holding structures, including drinking water tanks. Furthermore, this product offers a solution for waterproofing and repairing leaking water-containing structures without draining the existing water.



#### Properties

|                                 | Resin                                                                | Hardener              | Filler D®          |
|---------------------------------|----------------------------------------------------------------------|-----------------------|--------------------|
| <b>Appearance</b>               | Viscous Paste                                                        | Viscous Liquid        | Powder (Filler D®) |
| <b>Colour</b>                   | Colour Range                                                         | Amber                 | White              |
| <b>Mixing Ratio</b>             | 2 parts of resin component to 1 part of hardener component by volume |                       |                    |
| <b>Composition</b>              | Epoxy Rein based                                                     | Amine Based           | Hard Crystals      |
| <b>Density</b>                  | 1.50 - 1.60 g/ml                                                     | 1.01 - 1.03 g/ml      | -                  |
| <b>Viscosity (Ford Cup No4)</b> | Paste                                                                | 88 secs (200-225 CPS) | Powder             |
| <b>Solid Content</b>            | 100%                                                                 | 100%                  | 100%               |
| <b>Pot Life</b>                 | Approx. 20 - 30 mins at 30°C                                         |                       |                    |
| <b>Induction Time</b>           | 5-8 Mins                                                             |                       |                    |



|                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curing Time                                                                                                                                                           | 70% - 80%<br>strength in 24 hrs. at 30°C<br><br>100% (full)<br>strength in 72 hrs. at 30°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                   |
| <div> General Characteristics</div>                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |
| Petrokem Water Guard UWG40®                                                                                                                                           | <ul style="list-style-type: none"><li>• Specially developed for <b>Horizontal</b> surfaces in underwater grouting applications.</li><li>• Viscosity could be changed by adding filler D to the resin and hardener mixture (by changing binder to filler ratio)</li><li>• Provides a hard wearing, ceramic like surface with high mechanical strength and chemical resistance.</li><li>• Provides a rigid system and therefore not suitable to be used in expansion joints.</li><li>• Cures at room temperature.</li><li>• Cures underwater at normal temperature.</li><li>• Can be laid in a variety of surfaces.</li><li>• High impact, flexural, compressive and tensile strength.</li></ul> |                                                                                                                                                                                                                                                                                                                   |
| <div> Directions</div>                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |
| The successful performance of the product depends upon the conditions of application.<br>Careful planning of the repair work is essential in underwater applications. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |
| Important Factors for a successful Application                                                                                                                        | <ul style="list-style-type: none"><li>A. Proper mixing ratios of Resin &amp; Hardener</li><li>B. Mixing times of Resin &amp; Hardener. (5 mins of thorough mixing is recommended)</li><li>C. Amount Of Filler D Used</li><li>D. Conditions of the substrate and its preparation (Tile Groove should be clean, mechanically sound and free from all foreign matter)</li><li>E. Method of Application</li></ul>                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |
| Surface Preparation                                                                                                                                                   | STEP 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"><li>• Existing tile grout (if present) should be removed using a suitable grinder designed for underwater applications</li><li>• The tile groove should be cleaned by using suitable equipment to remove loose material, moss, old paint and all other foreign matter</li></ul> |

| Method of application                                                                                                   | Mixing Ratio of Petrokem Water Guard UWG40®                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                      |                                |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|
|                                                                                                                         | Petrokem Water Guard UWG40® Resin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Petrokem Water Guard UWG40® Hardener | Filler D®                      |
|                                                                                                                         | 2 Parts by Volume                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1 Parts by Volume                    | Suitable Amount (if necessary) |
|                                                                                                                         | <div><div>STEP 2</div><p>Mix thoroughly 2 volumes of Petrokem Water guard UWG40® <b>Resin</b> and 1 volume of Petrokem Water Guard UWG40® <b>Hardener</b> in a suitable clean container. Five minutes of thorough mixing is recommended. Then gradually add required quantity of Filler D® (if Required) and mix thoroughly to obtain a paste of smooth consistency. Mixing should be slow to avoid air entraining. Mixture should be kept for approximately 5 - 8 minutes (<b>Induction Time</b>). The mixed material is now ready to use and the pot life is approximately 20 - 30 minutes.</p></div> <div><div>STEP 3</div><p>Dive (use suitable diving equipment) down to the bottom for the application. Then pour the mixed material directly on to the floor. Use a suitable rubber wiper and spread the material over selected area ensuring the tile grout penetrates/fills the tile grooves. <b>Remove</b> excess tile grout from the tile surface immediately with a scraper or spatula before the tile grout is hardened (before 20 mins). Then sand with water sand paper P100 to further remove balance tile grout from the tile surface. Use a sharp blade or knife to cut uneven tile grout if needed.</p></div> |                                      |                                |
|                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      |                                |
|                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      |                                |
| <div> <b>Other Information</b></div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      |                                |
| Cleaner                                                                                                                 | Wipe all used equipment with a wet cloth. Use Petrokem Epoxy Thinner if required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                                |
| Packaging                                                                                                               | Available in 1 Kg packs (Resin 769 gms / Hardener 231 gms) & Filler D® is available in 250gm, 1kg, 7kg packs<br><br>2 Kg Pack (Resin 1.538kg / Hardener 462g)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                      |                                |
| Shelf Life                                                                                                              | Minimum of 12 months from the date of manufacture when stored in a cool, dry environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |                                |



Ensure good ventilation.

Avoid eye / skin contact

Eye contact : rinse with running water for 10 minutes and seek medical advice.

Skin contact : wash with soap and water.

Keep container closed and out of reach of children.

Refer material safety data sheet.

#### **Health & Safety Precautions**

Petrokem Water Guard UWG40® Resin and Hardener are chemicals and care should be taken when handling. For details please read Petrokem epoxy safety and handling information sheet. A copy of this manual will be supplied on request.

#### **Disclaimer :**

The information contained in this document is based on Petrokem's knowledge, drawn from laboratory testing and practical experience. Petrokem's products are categorized as semi-finished goods and may be used under conditions beyond the company's control. While Petrokem guarantees the quality of its products, no additional assurances can be provided. Furthermore, Petrokem reserves the right to amend the information presented in this document or elsewhere without prior notice.



**Petrokem Lanka (Pvt) Limited**  
240, Galle Road, Katubedda,  
Moratuwa, Sri Lanka.



**Customer Support : +94 (0) 11 2611077 | +94 (0) 11 2611078**  
**Technical Support : +94 (0) 11 2634635 | +94 (0) 70 3314077**  
**Fax : +94 (0) 11 2611078**  
**Email : sales@petrokemlanka.com**  
**Website : www.petrokemlanka.com**

**Copyright © 2025 by Petrokem Lanka (Pvt) Ltd**

All rights reserved. No part of this technical document may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Petrokem Lanka (Pvt) Ltd