DESCRIPTION
Rugasol surface retarders have been specifically designed for the production of exposed aggregate finishes or for producing a mechanical key to construction joints, stop ends, or subsequent rendering applications.

Rugasol products will only delay the ultimate hardening and do not stop the setting of cement. When used correctly Rugasol will not stain concrete, even white concrete. Rugasol will not affect the bond of reinforcement to concrete even if accidental splashing occurs, provided it is thoroughly cleaned with clean water.

USES
Gel-retarder for application to formwork to produce exposed aggregate work.

CHARACTERISTICS / ADVANTAGES
- Rugasol® F surface retarder is used to expose aggregate on Portland cement based concrete surfaces.
- Rugasol® F provides an efficient, economical method of obtaining a rough bonding surface without the need for hacking, chipping or grit-blasting.
- Rugasol® F is also used to produce precast panels having a decorative architectural finish showing the colour and texture of natural aggregate. The aggregate remains whole and unbroken.
- Rugasol® F is painted directly on formwork for walls, ceilings, vertical construction joints or any similar formed concrete surface. Rugasol® F dries on the formwork to a tough, but water-soluble film. Protect from rain. Forms may be coated before or after erection. Reinforcing still is placed as usual.
- Rugasol® F will retard the set of the cement paste by up to 6 mm (1/4 inch) depth, the depth depends upon the thickness of coating, the time elapsed before the retarder is removed, the cement content of the concrete and the quantity of water in the mix. The ambient temperature will also affect the depth of retardation.

PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical base</td>
<td>Polyhydroxy compound</td>
</tr>
<tr>
<td>Packaging</td>
<td>20 kg can</td>
</tr>
<tr>
<td>Appearance / Colour</td>
<td>Gel/ Transparent</td>
</tr>
<tr>
<td>Shelf life</td>
<td>12 months if stored properly in unopened, original packaging</td>
</tr>
<tr>
<td>Storage conditions</td>
<td>Dry, cool, shaded place</td>
</tr>
<tr>
<td>Density</td>
<td>~1.06 kg/L</td>
</tr>
</tbody>
</table>
**TECHNICAL INFORMATION**

**Specific Advice**
- Field trials are recommended to ensure satisfactory result.
- When using untreated wood or porous forms for the first time we recommended a minimum of two coats of Rugasol F. This will impregnate the surface and aid in the uniform exposure of aggregates.
- Form panels to be re-used may be scraped off and recoated with Rugasol F as soon as is required.

**APPLICATION INFORMATION**

**Consumption**
~0.25 - 0.3 kg/m²

**APPLICATION INSTRUCTIONS**

**APPLICATION**
Rugasol® F should be stirred before use and must not be diluted.
Rugasol® F may be applied to any type of clean formwork. Apply a heavy coat with brush or roller, and allow to dry (normally 2 to 4 hours). No mould oils should be on the forms. Coated surfaces should be protected from strong sunlight.

**Demolding**
Exposed Aggregate:
For optimum results forms should be removed as soon as possible after the concrete is poured, normally not later than one day in warm weather and up to 2 days in cold weather. If the forms must remain in place in longer period then use two or even three coats of Rugasol F to ensure deep penetrations.

Cleaning Off:
Some of the soft cement paste will stick to the form when the shuttering is stripped; while still soft this can be removed easily from both the formwork and concrete by a light wire-brushing or with a high pressure water jet. Always clean off immediately after stripping the shutters. The concrete should be kept moist and cured as usual. It is advisable to undertake a small test in all cases prior to use, as cements and condition of use can change from site to site.

**Cleaning of Tools**
All equipment should be washed out after use with water.

**BASIS OF PRODUCT DATA**
All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

**LOCAL RESTRICTIONS**
Please note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data and uses.

**ECOLOGY, HEALTH AND SAFETY**
For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.
LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika’s current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika’s recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. 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.