Construction

# Rugasol

## Water Dilutable Surface Retarder

## Description

Rugasol retards the setting time of the cement in the concrete surface and can be removed as soon as the underlying concrete has hardened. The stone material in the concrete surface is exposed and is seen in relief. The depth of the removable cement varies with the different types of retarders but is normally around 1 mm for Rugasol-AO, 1-3 mm for Rugasol-A, 4-6 mm for Rugasol-AS100 and 7-9 mm for Rugasol-AS200. Which type of Rugasol is suitable to use is decided after pre-tests. The product meets the requirements for chemical products according to BASTA.

Rugasol products:

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| Rugasol A0 | ca 1 mm |
| Rugasol A | ca 1-3 mm |
| Rugasol AS | ca 3-5 mm |
| Rugasol AS 100 | ca 5-7 mm |
| Rugasol AS 200 | ca 7-9 mm |

## Usage

Rugasol is used for ready-made concrete elements and site-cast concrete, where, for achitectural reasons, it is desired to have the stone material of the concrete visible in the surface. Ballast exposed by Rugasol is also used to ensure adhesion of grout or casting of concrete, thus an expensive rough chopping or sand blasting can be avoided.

## Technical Data

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| **Type** | Water dilutable | |
| **Colour and shape** | Rugasol A0 | Yellow liquid |
| | Rugasol A | Blue liquid |
| | Rugasol AS | Green liquid |
| | Rugasol AS100 | Red liquid |
| | Rugasol AS200 | Grey liquid |
| **Density** | 1,15 - 1,20 kg/dm$^3$ | |
| **pH** | 8 ± 1,0 | |
| **Viscosity** | Viscous | |
| **Consumption** | Ca 0,1-0,2 l/m² | |
| **Package size** | 10 kgs | |
| **Storage time** | Min 1 year in intact original package at frost free storing | |

## Application

**Exposure of Concrete Elements**

A horizontal form with the application side downwards is the easiest and most efficient method to obtain an even exposure. Suitable material for the form would be plywood sealed with epoxy, concrete or steel. The form shall be even, without cracks, clean, dry and preferably not sucking from the form material. The form shall be thoroughly cleaned between each casting. For a horizontal form with the application side up, the procedure is as above, however, the Rugasol can be sprayed on the upper surface of the concrete after casting as soon as the water has vanished from the surface. At exposure on a vertical form, it is essential that Rugasol is not used in such thick layers that it flows or is assembled in corners and angles and has to dry up before casting.

**Exposure on site-cast concrete**

It is harder to have an even exposure and ballast distribution when casting on site. The concrete must be thoroughly proportioned so that a separation is avoided and a complete filling is obtained. For the best possible result, it is recommended that a liquid accelerator is added to the concrete. At casting, the form prepared with Rugasol needs to be protected from down-bursting concrete. This can be done by using a protective screen which can be gradually taken away as the casting proceeds.

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| **Application** | Rugasol is applied undiluted with a roller as a thin and even layer in the form. Brush painting or spraying often gives a less even distribution and exposure. **Before using Rugasol, it shall always be stirred well.** A thicker layer of Rugasol gives a deeper exposure. The Rugasol layer should dry before distribution of the concrete to avoid an uneven exposure. Rugasol can be applied days before the casting, in which case the form should be protected from rain. |
| **Demoulding** | Demoulding is normally done after 1-3 days. Directly after the demoulding, the concrete is steel brushed and flushed with water so that the unconnected concrete skin is removed in full. Thereafter, the concrete is after-cured as it is normally done. |
| **Cleaning** | Cleaning of the form it made with a putty knife or a steel trowel, followed by a brushing. Since Rugasol only delays the slurring time, the form needs to be cleaned directly after the demoulding. |

## Health & Safety

Please refer to the Material Safety Data Sheet.

## Legal Notes



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