

## NordicSIR Foam

### Two Component (2C) Foaming Silicate Resin

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#### Product Description:

Rapidly reacting, strongly expanding, two component injection silicate resin which is flame retardant and CFC-free:

- Cavity filling and consolidation / securing of soil
- Water sealing, fast reaction also against inflow of pressurized water
- Other alternate geotechnical applications

Low Temperatures: Applicable at ambient temperatures > 5 °C.

#### Technical properties:

The data below are laboratory data only. They may vary in practice due to thermal exchange between resin and strata, surface properties of the stone, humidity, pressure and other factors.

#### Reaction Data with 10% water and 10% Accelerating Catalyst:

Temperature	5 °C	10 °C	25 °C
Starting of foaming action	55 s ± 20 s	30 s ± 15 s	20 s ± 10 s
End of foaming action	110 s ± 25 s	110 s ± 25 s	45 s ± 20 s
Foaming factor	5 to 12	10 to 20	15 to 30

#### Material Data:

	Component A	Component B
Density at 25 °C kg/m <sup>3</sup>	1450 ± 35	1220 ± 20
Viscosity at 25 °C mPa*s	260 ± 65	135 ± 20

#### Composition and Properties

Component A is a special sodium silicate with additives.

Component B is a modified polyisocyanate on the basis of 4,4'-diphenylmethane diisocyanate (MDI).

## Application:

Before pumping stir both components thoroughly. The components are pumped by a dual component pump at the volumetric ratio 1:1. They are mixed thoroughly in a static mixer unit, prior to injection into strata via a packer installed in a previously drilled borehole. After a short time, the resin mixture begins to foam and penetrates forward driven by the injection pressure into the rock and sticks in cracks, larger gaps, holes and permeable coarse soil. Application of product when it is cold (5 °C to 10 °C) can lead to a delay in the reaction time, to a smaller foaming factor and increased occurrence of reaction steaming.

## Recommendation:

We recommend that before processing, the product should be stored for at least 12 hours at a minimum temperature of 15 °C to achieve the recommended processing temperature of between 15 °C to 25 °C.

## Packaging:

Component A:	35 kg in PE can
Component B:	30 kg in PE can

## Storage, shelf life:

The shelf life of the product is six months from date of delivery. The product should be stored in a dry place at temperatures between 15 °C and 25 °C. Improper storage will shorten shelf life.

## Disposal:

Dispose of uncured product components in accordance with the local regulations. Small quantities of cured product residues may be disposed of as normal domestic waste. Empty cans should be cleared of liquid by punching a hole through the edge of the cover and turning them upside down, until liquid does not flow out any longer.

## Disclaimer:

The data in this sheet conform to our best knowledge and experience at the date of printing, which is indicated below. The state of knowledge and experience are evolving constantly. Please pay attention therefore, that you always refer to the current version of this data sheet. The description of the product application in this sheet cannot take the special conditions and circumstances into account emerging from the individual case. Application, use and processing of our product occur outside of our control capabilities. In particular, the processing results are exclusively subject to your own responsibility. No data in this sheet constitute a guarantee in a legal sense. Every time the user is obliged to check the product and auxiliary agents in terms of usefulness for his intended use.

Revision date: 30.03.2019