NordicPUR Extreme

Two Component (2C) Ultra-Fast Reacting Polyurethane resin

Product Description:

Extremely fast reacting with a higher foaming factor, two component injection resin, free of CFCs, and halogens. For sealing and solidification in water bearing zones above +0°C:

- Consolidation in wet and water-bearing strata
- Sealing against strong water ingress
- Sealing against water under pressure, e.g. from the ground, dams or shaft walls
- Stabilization and sealing work in tunnels
- Repair of old shafts and tunnels
- Stabilisation of crown abutments in tunnels
- Many other sealing, consolidation and stabilisation applications

Technical Data:

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:

Temperature	15 °C
End of Foaming Time (No water contact)	40 s ± 5 s
Foaming factor	1,0 – 1,3
Start Foaming Time (1% water relative to mix)	35 s ± 10
End Foaming Time	55 s ± 20 s
Foaming factor	3 – 6
Start Foaming Time (2% water relative to mix)	40 s ± 15 s
End Foaming Time	75 s ± 15 s
Foaming factor in water	4 - 10

Material Data:

	Component A	Component B
Density at 25 °C kg/m³	1010 ± 2	1220 ± 30
Viscosity at 25 °C mPa*s	200 ± 5	200 ± 50

Mechanical Data:

Adhesive strength (dry surface)	> 6 MPa after 60 min
Compressive strength	75 ± 15 MPa

Composition and properties:
Component A is a mixture of various polyols and additives. These react with component B to develop a tough and hard resin foam for sealing, filling and stabilisation.
Component B is a modified polyisocyanate, based on 4,4'-diphenylmethane diisocyanate (MDI).

Application:
The two components are pumped by a dual component pump at the volumetric ratio of 1 : 1, then mixed thoroughly in a static mixer unit prior to injection into the strata via a packer installed in a previously drilled borehole. In contact with water, the resin then foams up. The following reaction mix displaces the preceding one. Since the mixture does not meet any more water, it hardens without foaming to form a pore-free material. In case of appropriate conditions, a waterproof seal can be achieved in a single operation.

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: 25 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.

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