

Novotect

Technical Data Sheet

Description

Novotect is a surface-tolerant two-component basic material on epoxy resin base for steel and galvanized surfaces. It also offers economical and high performance corrosion protection for manually de-rusted surfaces.

Composition

Two-component epoxy with low percentage of light solvents; pigments free of lead and chromate.

Recommended Applications

- For single or multi-layer coatings of mechanically and chemically loaded steel surfaces with weathering exposure.
- Repair of corroded structural components.
- Revision of existing intact coatings for example in chemical industry, oil industry, in sewage treatment, steel and hydraulic steelwork, off-shore, nuclear power plants, on sandblasted and manually or mechanically derusted surfaces.

Features

- Surface tolerant
- Outstanding penetration effect
- Excellent adhesion and corrosion protection
- Good resistance against weather, humidity, condensation, water as well as chemical and mechanical attack
- For thick, non-porous layers
- Approved for contact surfaces with planed pre-stressed screw connections

Resistance

Chemical resistance

Weather, de-icing salts, oils and grease and short term exposure to fuels and solvents.

Due to the reason that the resistance of the coating can be affected by various factors (medium, temperature, concentration, layer thickness etc.) we recommend to consult us prior to the application.

Surface Preparation

Appropriate surface preparation is essential in order to obtain good results with this product (DIN EN 14879-1 : 2005). The exact requirements change according to kind of application, expected serviceable life and the original status of the surface.

Steel:

Surface preparation acc. to DIN EN ISO 12944, part 4.

The required degree depends on future exposure.

In case of atmospheric exposure St 2 or St 3 is sufficient.

The substrate must be free from dirt, oil and grease.

Galvanized surfaces:

Free of oil, grease and zinc salts.

In case of permanent condensation surfaces should be sweep blasted acc. to DIN EN ISO 12944, part 4.

For contaminated and weathered surfaces e.g. galvanized or primed areas we recommend to clean with an alkaline cleaner.

For the preparation of other surfaces, kindly contact us.

Technical Data			
Density (mixed material)	ASTM D 792	1.3	kg/l
Temperature resistance dry permanent	ASTM D 648	max. +100*	°C
Wet heat/warm water	ASTM D 648	max. +40*	°C
Solid content	volume	67	%
	weight	80	%
VOC		250-300	g/l

*Due to the fact that the resistance of the coating can be affected by various factors (medium, temperature, concentration, layer thickness, etc.) we recommend to consult us prior to application.

Preparation of Material

The material is delivered in proper mixing ratio. Put the curing agent completely into the basic material and agitate carefully, preferably with a mechanical agitator. Be sure to contact also bottom and sides of the container. Only prepare as much material as you can handle within pot life.

Mixing ratio 88 : 12 part by weight
(Part A : B)

Application Instructions

Min. +5 °C (material and surface)
Relative humidity: max. 85 %, except the surface temperature is significantly higher than the dew point, Observe dew point.
Dew point distance \geq 3 K. If necessary max. 5 % thinner EG may be added to adapt the viscosity.

The specified dry film thickness is achieved by airless spraying. Achieving a uniform film thickness and appearance depends on the application method. In general, the spraying method leads to the best result. The addition of solvent reduces the stability and the dry film thickness.

Depending on the construction, local conditions and colour shade, additional work steps may be necessary to achieve the required layer thickness when using the brush and roller method. Before starting the coating work, it is recommended to check by means of a test surface on site whether the selected application method with the agreed product meets the requirements in the result.

Airless spraying/paint or roll

Brushing:
For surface preparation St 2 or St 3 best penetration and surface wetting can be achieved with brush application.

Spraying:
High-pressure spraying method (cup gun)
Nozzle size 1.7 – 2.5 mm; pressure 3 – 5 bar.

Airless spraying:
Spray pressure min. 180 bar; diameter of hoses min. 8 mm ($\frac{3}{8}$ inch), nozzle size 0.38 – 0.53 mm (0.015 – 0.021 inch); spraying angle 40° - 80°.

Pot life:

+5 °C	+20 °C
approx. 6 hours	approx. 4 hours

Composition of Coating/ Material Consumption

Theoretical material-consumption/VOC without loss for medium dry film thickness

DFT μm	WFT μm	approx. kg/m ²	VOC approx. g/m ²
100	150	0.194	39

The practical consumption depends on surface properties and application method.

Technically possible layer thickness range: 70-200 μm per layer

Re-coating Intervals/Sequence Coatings

Surfaces have to be clean, dry and free from oil and grease. When exceeding the interval times, surfaces have to be roughend. The re-coating interval shortens strongly through sun influence. Appropriate safety measures must be taken.

Waiting time between coats:

+5 °C	+20 °C	+30 °C	max. 1 year
min. 12 hours	min. 6 hours	min. 3 hours	

Curing Time

dry film thickness	+5 °C	+20 °C	+30 °C
100 μm	12 hours	6 hours	3 hours

Depending on layer thickness and temperature final hardness is achieved within 1–2 weeks.

Higher film thicknesses, but also lower temperatures than indicated specified, lead to longer drying times. The revision intervals may be delayed as a result and may have to be determined on site.

Packing Units

The material is supplied in the following packing size:
14.0 kg (12.32 kg Part A and 1.68 kg Part B)
Delivery in colour aluminium.

Cleaning

Cleaner

Storage

The material should ideally be stored in unopened original bins under cool, dry and frost free conditions, at temperatures between +10 and +32 °C, divergence during transport is acceptable. Please observe the expiry date stated on the material.

Safety Instructions

For the handling of our products, the significant physical, safety-related, toxicological and ecological data according the substance-specific safety data sheet are to be extracted. The applicable rules and regulations, such as for example the Hazardous Substances Regulation, have to be observed. A detailed safety data sheet will be delivered with the material or is available upon request.