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## **RISTIN NEF**

### **TECHNICAL DATA SHEET**

**TL 254/2001**

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#### **Product characteristics**

**RISTIN NEF** is a solution of synthetic resins in a mixture of organic solvents. It is hardened with the HARDENER T 156 or the HARDENER T 150.

#### **Applications**

**RISTIN NEF** coating composition is used for protection of equipment exposed to influence of aggressive environment of an acidic, basic or slightly oxidizing character. For decorative and aesthetic purposes, the agent can be coloured by adding up to 8 % (counted per a coating composition) of an aluminium paste 7010 without any risk of deterioration of its mechanical properties. Additionally, the black colourant RISTIN NEF/BLACK can be also added to it.

#### **Product Features**

Dark brown coloured, low-viscous liquid with an ester-like odour.

#### **Organic solvent content**

##### **RISTIN NEF**

characteristic	unit	value
product's density	g.cm <sup>-3</sup>	1.030
Content of organic solvents (expressed in mass fraction)	kg/kg of the product	0.51
Total organic carbon content	kg/kg of the product	0.423
Content of nonvolatile substances (expressed in volume percent)	volume percent	40.85

##### **RISTIN NEF-AL**

characteristic	unit	value
product's density	g.cm <sup>-3</sup>	1.030
Content of organic solvents (expressed in mass fraction)	kg/kg of the product	0.50
Total organic carbon content	kg/kg of the product	0.480
Content of nonvolatile substances (expressed in volume percent)	volume percent	42.00

**RISTIN NEF** must comply with the following quality characteristics:

Quality characteristic	Value	Methodology of assessment
Dry matter (%)	minimally 45	PN-ZM 254/2001
Consistency (measured by a 4 mm efflux cup) at	maximally 50	ČSN EN ISO 2431

20 °C (in seconds)		
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**RISTIN NEF-AL** must comply with the following quality characteristics:

Quality characteristic	Value	Methodology of assessment
Dry matter (%)	minimally 40	PN-ZM 293/2002

### **Directions for Use**

#### *Surface preparation:*

In case of a metallic surface, any present rust must be removed by abrasive blasting or cleaned by a sand-paper or wire brush. Moreover, it must be degreased with an organic solvent. In case of a concrete surface, dust and impurities must be removed mechanically.

It is possible to provide the treated metal with a basic reactive coating - preferably using a basic two-component epoxy-based zinc chromate agent S 2300 - especially in cases when the treated surfaces are exposed to weather conditions.

#### *Mixing ratio:*

<b>RISTIN NEF</b>	100 units of mass
<b>HARDENER T 156</b> or <b>HARDENER T 150</b>	20 units of mass

#### *Coating application:*

The coating composition is applied mostly by a brush. Application by spraying is rather sporadic. It can also be applied by dipping. Consistency of the coating composition after it is mixed is between 40 to 60 seconds depending on temperature (ČSN EN ISO 2431, a 4 mm efflux cup). Four hours after the preparation, its consistency increases by approx. 20 s.

For dilution of the coating composition and for cleaning of used tools, it is possible to use the diluent S 6003, toluene or xylene.

Protective coating is created by successive application of 3 to 8 layers of the coating depending on a level of aggressiveness of the environment. Each consecutive layer is applied after the previous one becomes dry, i.e. after 1 to 5 hours depending on temperature of the environment and number of layers. Thickness of a single layer of the coating when hardened is approx. 45 micrometres.

#### *Working time:*

at 15 °C	maximally 5 hours
at 20 °C	maximally 4 hours
at 25 °C	maximally 3 hours

It is necessary to prevent volatilization of solvents from a working container with the prepared substance.

#### *Hardening time of the coating:*

At 20 °C, hardening of the composition takes from 2 to 3 days. At lower temperatures, the hardening time extends. On the other hand, it shortens at higher temperatures. The coating composition can be exposed to higher temperatures once a solvent evaporates. The coating can be exposed to aggressive environment seven days after its last layer was applied.

#### *Cleaning of used tools:*

Used tools can be cleaned with the diluent S 6003, toluene, xylene or perchloroethylene.

Consumption of **RISTINU NEF** depends on properties of the treated bedding

When applying the product to inabsorbing surfaces (e.g. metallic material), its consumption is 0.125 kg/m<sup>2</sup>. When the product is applied to adsorbing surfaces, its consumption reaches approx. 0.25 kg/m<sup>2</sup>.

### ***Properties of a coating film:***

The coating composition becomes dry very quickly.

To the level    S1 in 10 to 15 minutes  
                     S2 in 2 to 2.5 hours  
                     S4 in 4 to 5 hours.

It creates hard films with lower elasticity that are well-adhering to various beddings. Adhesiveness to a steel plate was evaluated by the cross cutting method as a level 1 (O1).

At temperatures ranging from 20 to 25 °C, three-layer coatings **resist** effects of sodium hydroxide, sulphuric acid, fractional nitric acid, sodium chloride and water.

Moreover, these coatings **resist** non-polar organic solvents such as petrol or diesel petrol (only partially).

They **do not resist** ketones, esters and organic acids. The coatings are usable up to 110 °C.

### **Packaging & Storage**

**RISTIN NEF** is delivered in 200 l galvanized barrels. Alternatively, it can be delivered in different containers that were discussed and agreed on in advance. Store it in a sealed container in places protected from direct climatic influences. Recommended storage temperature is from +5 to +25 °C. Storing at temperatures below 0 °C does not affect product's application properties.

### **Transport**

**RISTIN NEF** is transported by covered vehicles in compliance with ADR/RID Regulations.

### **Warranty**

Provided the product is transported and stored in accordance with the above written conditions, its warranty is 6 months from the date it was delivered from a warehouse.

### **Note**

Data about the product characteristics and its processing were obtained by laboratory measurements and application tests. This technical data sheet can provide solely legal advice without any engagements. Use of the product should be always adjusted to specific conditions.