





-  WATERPROOFING FOR TANKS AND RESERVOIRS
-  IMPERMEABILIZZANTI LIQUIDI PER VASCHE E SERBATOI
-  IMPERMÉABILISATION DE CUVES ET RÉSERVOIRS
-  HYDROIZOLACJE DO ZBIORNIKÓW



## ESTER PE

### Acid-resistant protective coating

#### Description

ESTER PE is a two component product consisting of

- component A: mixture of polyfunctional prepolymers and liquid additives.
- component B: polymerization catalyst.

Once the material is fully cured it exhibits good chemical, corrosion and temperature resistance.

Also available:

- ESTER PE/VE component C to accelerate the product when room temperature is below +15°C;
- ESTER PE/VE component D as the necessary additive for the finishing layer realization.

ESTER PE is available in its transparent or tinted versions.

#### Where to Use

ESTER PE is used for realizing swimming pools and acid proof coatings for different types of building areas and equipment such as tank farms, processing tanks, pipes, conduits and chimneys.

Chemical resistance:

- in contact with liquids up to a maximum working temperature of +80°C;
- in contact with gases up to +90°C.

These conditions may vary depending on the chemical nature of the liquid in contact. Please contact NORD RESINE technical department for further specification.

#### Application

##### Substrate Preparation:

- carefully check the substrate to make sure it is a suitable and structurally sound base;
- the kind of treatment to be performed shall be chosen, depending on the actual state of the area, between the following:
  - hot water pressure washing;
  - washing by means of acids;
  - sanding;
  - diamond grinding;
  - blasting or scarification (only in case of floors).

In this way dust, dirt, grease, oil, old adhesive or paint, laitance, rust, mildew and other extraneous materials will be removed.

- The depressions and inconsistencies of the surface must be evened out with GROVE RIPRISTINO or RASANTE 2000 2K.

##### Specific Preparations:

*in the absence of external waterproofing:*

apply W3 (1.5 kg/m<sup>2</sup>) reinforced with a glass mesh.

##### Product Preparation

Product pot life (shelf life of the product in the bucket after mixing of components) is short and decreases along with the components starting temperature increase and with the increase of the mixed product amount. To extend pot-life as long as possible, proceed as follows:

- prior to use, allow the two components to rest in a cool ambient air;
- prepare small quantities of product (A + B) at a time, up to a max. of 3 kg in hot weather. In case of partial use of the package, pay special attention to respecting the hardening ratios written on the label.

Then proceed to the mix:

- pour ESTER PE component B into component A and then mix well with a professional mixer;

When using ESTER PE/VE component C and/or component D, scatter with care (using a professional mixer) such additions over component A before pouring in component B.

##### Product Application



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- apply with a solvent resistant long haired roller and brush;
- to realize coatings, apply ESTER PE on dry areas using a roller, place a glass reinforcement on the area to be treated and soak to excess wet on wet;
- then apply a glass veil reinforcement as a finish and impregnate.

#### Consumption

- ESTER PE (A+B): variable depending on reinforcement type.
- ESTER PE/VE component C: from 0.1 to 0.3% depending on working room temperature.
- ESTER PE/VE component D: 4% by weight or volume **only** on the last final coat.

#### Coverage

To achieve a coating with a thickness of approx. 1 mm it is necessary to apply 1.10 kg/m<sup>2</sup> of product (A+B).

#### Warnings and Special Instructions

- Before applying the finishing layer for any kind of working method always add ESTER PE/VE component D to the product.
- The product can be brought into contact with water starting from the day after the application.
- When used for liquid foodstuff containment tanks, ESTER PE shall be used only when fully cured (after completion of styrene traces transfer).
- To reach full cure in a short time, few days at +30°C or 24 hours at 60°C are needed.
- Use acetone to clean tools.
- It is a flammable product. Protect respiratory tract with a mask for organic compounds.
- Read the Material Safety Data Sheet (MSDS).

#### Specifications

Bulk Density, UNI 8310	g/cm <sup>3</sup>	1.05 ± 0.05
Pot-life, UNI EN ISO 9514 (+23°C)	minutes	20 ± 5
Superficial drying time, UNI 8904	minutes	65 ± 15
Curing minimum time	days	> 7
Application Temperature	°C	from +8 to +35
Shore D hardness (7 days / 23°C), ASTM D 2240	---	72 ± 3
Ultimate flexural strength, ISO 178	MPa	113 ± 11
Ultimate tensile strength (film), ISO 527	MPa	62 ± 6
Ratio A : B	98 : 2	





Note: test methods are in accordance with the standard referred to in the table.

#### Chemical resistances, EN ISO 2812-1 (method 2)

30% hydrochloric acid in water	5
10% sulfuric acid in water	5
20% phosphoric acid in water	5
30% acetic acid in water	5
15% ammonia in water	5-4
soda (sodium hydroxide) 30% in water	5
3.5% hydrogen peroxide (12 volumes)	5
mixture of acetic acid (1%) and hydrogen peroxide (0.5%) in water	5
ethyl acetate	1
denatured ethyl alcohol	4
technical Acetone	1

(1 = product disintegration, 5 = no alteration; for the full range see [Appendix A](#))



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#### Packaging and storage

ESTER PE is available in packs of 5 and 20 kg.

Store in a covered place, at room temperature between +10 and +30°C.

#### Legal notice

Tips on how to use our products match the current state of our knowledge and do not imply any assumption of responsibility or/and liability for the final result of works. Therefore, customers are not exempt from the responsibility to verify the suitability of products for use and final aims through preliminary tests. The website [www.nordresine.com](http://www.nordresine.com) contains the latest revision of this datasheet.

#### Edition

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