



# TECHNICAL DATA SHEET

## VILEPOX PE-206 impregnating resin

### **Description:**

Vilepox PE-206 is a one-component (1K), solvent-free, styrene-free polyester-imide based impregnating resin. It is used mainly for vacuum- and dipping impregnation.

### **Benefits:**

- H thermal class, temperature index: 180 °C
- Free of solvents and styrol, environmental sound content
- The product does not need any initiator additive
- Excellent application features, low viscosity
- Suitable for dipping, vacuum and dripping impregnation
- Guarantees obtaining high filling of the inter-wire space
- Excellent mechanical and dielectrical features after baking
- Coating is resistant to water, diluted bases, acid, solvents and coolants
- Long storage-life

### **Application:**

Wide field of application for impregnation of any types of electrical equipment i.e. stators and rotors, coils, transformers of different size, type and power, especially when emission of organic substances is restricted.

### **Impregnation:**

VILEPOX PE-206 may be used for single flow immersion or vacuum immersion and dripping impregnation as well. The resin is supplied in ready to use form. No other substances should be or allowed to be added to the product. The drum and the system should be cleaned thoroughly and dried before filling it with VILEPOX PE-206.

Sufficient impregnation of coils is signalled by disappearance of air bubbles pushed out by the resin.

Best result can be obtained by vacuum pressure impregnation (VPI), where the following technology is suggested:

1. Dry pieces at 105 °C before impregnation
2. Next put them in the autoclave and cool down to 40-50°C
3. Turn on the vacuum-pump.
4. Submerge pieces for impregnation with resin and keep it in vacuum until coming up air-bubbles can be seen. Stop vacuum afterwards.
5. Give pressure on autoclave (e.g. 6 bar)
6. Stop the pressure, suck back the resin into the drum and let the pieces to drip for 30 minutes.

### **Curing:**

#### **Suggested conditions:**

8-16 h	at 120°C
4-6 h	at 135°C
3-5 h	at 150°C



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The above-specified curing times are calculated from the moment, when the total volume of impregnated element reaches the curing temperature. Thus the actually needed curing time elongates by the time needed

for warming up the pieces. The curing time should be determined individually for each impregnated element, depending on its size, shape, specific weight and dryer type.

## Technical parameters:

- |  |                                  |
|--|----------------------------------|
| • Appearance:                          | honey-yellow, transparent liquid |
| • Density at 25 °C, g/cm <sup>3</sup>  | 1,17-1,23                        |
| • Outflow time (Ford cup-4, 20°C), s:  | 100-130                          |
| • Viscosity at 23 °C, m Pas:           | 460-760                          |
| • Gel time at 100°C, min.:             | 8-10                             |
| • Dielectric strength(15-20 μ), kV/mm: |                                  |
| at 20°C                                | min.190                          |
| at 155°C                               | min. 170                         |
| after 24 h in water                    | min.100                          |
| after 120 h in water                   | min. 80                          |
| • Water absorption, weight %:          |                                  |
| after 24 h in water                    | max.0,2                          |
| after 120 h in water                   | max.0,4                          |

## Storage:

VILEPOX PE-206 can be stored for 1 year in tightly closed packaging, in warehouses with efficient ventilation system, at the temperature 5-30 °C. Thickening during this time does not have influence on the application properties.

## Packaging:

In cans of 20 kg or drums of 200 kg. Other packaging is also available on request.

## H&S information:

- At workplace: protective clothing as overall, gloves, arm protectors, goggles are essential.
- The product should be stored in well-ventilated facilities.
- Avoid skin contact. In case of skin contact, rinse with soap and water.
- In case of eye contact immediately rinse with plenty of water and seek medical help.

Labour safety and environmental information is detailed in the „Safety data sheets” of the product.

This brochure was compiled according to our best knowledge, but no legal obligation can be based on its content.

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