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## **Voltahyd® 2220 Polyacrylate Coating Varnish**

Voltahyd® 2220 is water-based, red-pigmented, air-drying 1-component hybrid topcoat.

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### **Attributes**

Voltahyd® 2220 is a water-based, ready to use, quick drying and pigmented topcoat with good adhesion to steel, galvanized substrates and aluminium. It is suitable for additional protection against external influences, especially against humidity and corrosion. Voltahyd® 2220 has also a good adhesion to impregnating resins\* respectively on impregnated goods.

\*tested on styrene based impregnating resins

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### **Standards**

Railway applications EN 45545-2:2013 + A1:2025 - Fire protection on railway vehicles.

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### **Delivery forms**

1 kg cans or 20 kg cans (non-returnable) or 200 kg drums (non-returnable).

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### **Color**

Red

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### **Storage**

A temperature range of above 5 °C and below 35 °C is recommended as storage temperature. As Voltahyd® 2220 is a water-based product, it must be protected against frost! In originally closed delivery items, the product has a shelf-life of 6 months. Opened containers have to be closed tightly after material withdrawal!. We recommend storing the product between 20-25 °C.

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### **Hardening**

Air-drying at room temperature (20-25 °C) is preferred for this product:

- 45-60 min tack free
- 2-3 h touch dry
- 24-36 h ready to assemble

Accelerated drying:

- 60-70 °C: 2-3 h ready to assemble

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### **Protection**

Voltahyd® 2220 is intended for industrial / professional usage only. For further information please refer to the safety data sheet.

**Product datasheet**

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**Processing**

The coat can be applied to the object by dipping, brushing or spraying. Since the pigments and fillers contained in the coating may settle over time, Voltahyd® 2220 should be thoroughly stirred before application. Adding Voltatex® T041 is possible to adjust the optimal processing viscosity of Voltahyd® 2220.

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Updated 01/25



| Mechanical | Unit of measure   | Conditions | Values    | Test method |
|------------|-------------------|------------|-----------|-------------|
| Colour     |                   |            | Red       |             |
| Density    | g/cm <sup>3</sup> | 20 °C      | 1.05-1.25 |             |
| Flow time  | s                 | DIN Cup 4  | 70-150    | DIN 53211   |
| Viscosity  | mPas              | 25 °C      | 200-450   | DIN 53019   |

| Liquid phase   | Unit of measure | Conditions | Values | Test method |
|----------------|-----------------|------------|--------|-------------|
| VOC            | %               |            | <5     | 2010/75/EU  |
| Curing time    | h               | 20-25 °C   | 24-36  |             |
| Curing time    | h               | 60-70 °C   | 2-3    |             |
| Solids content | %               | Red        | 40-50  |             |

| Electrical          | Unit of measure | Conditions       | Values | Test method                              |
|---------------------|-----------------|------------------|--------|------------------------------------------|
| Dielectric strength | kV/mm           | unstressed       | >70    | IEC 50455-2, IEC 60464-2 at 23 °C/50% RH |
| Dielectric strength | kV/mm           | 168 h at 92 % RH | >40    | IEC 50455-2, IEC 60464-2 at 23 °C/50% RH |

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| Electrical          | Unit of measure | Conditions      | Values           | Test method                              |
|---------------------|-----------------|-----------------|------------------|------------------------------------------|
| Dielectric strength | kV/mm           | 168 h at 160 °C | >70              | IEC 50455-2, IEC 60464-2 at 23 °C/50% RH |
| Volume resistivity  | Ω*cm            | unstressed      | 10 <sup>11</sup> | IEC 50455-2, IEC 60464-2 at 23 °C/50% RH |
| Volume resistivity  | Ω*cm            | 168 h at 92% RH | 10 <sup>8</sup>  | IEC 50455-2, IEC 60464-2 at 23 °C/50% RH |
| Dielectric strength | Ω*cm            | 168 h at 160 °C | 10 <sup>14</sup> | IEC 50455-2, IEC 60464-2 at 23 °C/50% RH |
| Grid cut            |                 | unstressed      | GT 0-1           | DIN 53151                                |
| Grid cut            |                 | 168 h at 92% RH | GT 0-1           | DIN 53151                                |
| Grid cut            |                 | 168 h at 160 °C | GT 0-1           | DIN 53151                                |

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