



TECHNICAL SHEET



Product name:

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Characteristics:	Single-layer anticorrosion paint for industrial use – Czech Railways variant
Description:	Single-pack, water-thinnable, half-matte, single-layer paint formulated on the basis of styrene-acrylic dispersion.
Composition (general):	The mixture based on styrene-acrylic dispersion with the addition of alkyd. It contains anticorrosion and color-fast pigments, fine extenders, coalescent agents and other ingredients enhancing its properties. As a thinner, it contains water and a small amount of glycol-ether-based solvents; it does not contain any aromatic solvents or white spirit.
Application:	For surface treatments of freight railway vehicles (rolling stock) and other surface treatments of steel in the industry. After drying, the paint forms a medium-hard elastic film featuring excellent anticorrosion properties and cohesion with metal substrates.
Colors:	Black and russet as required by Czech Railways (RAL 8012, 9005, 7043 a ČSN 0840)
Properties:	Paint:
Density (g/cm³):	1.15 - 1.20
Volume solids ONL (%):	38 - 42
Weight solids (%):	48 - 50
KU viscosity:	85 - 95
Flow time by use of flow cups F6 (s):	30 - 60
pH (at 20 °C):	8.5 - 9.0
VOC (volatile organic compounds) (kg/kg):	0.07
0.006 TOC (total organic carbon content) (kg/kg):	0.045
Maximum permissible value of VOC content (g/l):	140
Max. VOC content in the product in the ready-to-use condition (g/l):	84
Water-thinnable paint category:	A/i single-pack paints with a special function.
Appearance/color:	Slightly thixotropic fluid
Gloss value (at 60°):	20 - 40
Pendulum hardness (2H/80 °C):	min. 30%
Miscibility:	miscible with water
Adhesion by the grid-cutting method:	Degree 0 (cut edges are completely smooth and free of any defects)
Drying time, degree 2 (dry to touch):	3 hrs
Drying time, degree 4 (dry-through):	4 hrs
Drying time, degree 6:	8 hrs
Marking to next operation (marking with a marker paint, transfers):	12 hrs
Drying time to weather exposure:	24 hrs
Substrate preparation:	<p>For the corrosion environments of C2 and C3, the surface must be cleaned by blasting to the degree Sa 2 ½ according to the ČSN EN ISO 8501-1 standard (welds and edges must be treated according to ČSN EN ISO 8501-3).</p> <p>For the corrosion environment C1, the substrate must be clean, dry, free from grease and rust residues and mechanically cleaned to the degree St 2 - St 3.</p> <p>Previously painted surfaces must be cleaned and degreased, and old non-adherent coatings must be removed. To ensure the compatibility of the new coating with the old one, it is recommended that you contact the manufacturer or perform test reference coating. The substrate must be dry, free from any mechanical and greasy impurities, and residues of old paint incoherent with the substrate. Recommended substrate treatments include blasting, degreasing or phosphatizing.</p>
Application conditions:	The paint is supplied in a slightly thixotropic consistency to be applied by high-pressure spray painting; for the application using a paint brush or a paint roller, the paint should be thinned with a 10 wt. % of water. Other application methods and application conditions should always be discussed with the manufacturer. The air and substrate temperatures during the coat application and drying must not fall below +15 °C, a min. of 3 °C above the dew point, max. humidity 70 vol. %.



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Thinning:	Water - see "Application Conditions"												
Recommended method of application:	With a paint brush, a paint roller or by soaking or spray painting - air, pneumatic, high-pressure - Airless, Airmix												
Recommended coating system:	Using a high-pressure spraying device, the paint should be applied in one layer in a recommended wet-film thickness of 300 µm (120 µm for dry-film thickness). The paint can also be applied in two layers - 2 x 150 µm for wet film (2 x 60 µm for dry film) - the re-spray interval is 12 hrs at 20 °C - if the additional drying at temperatures not exceeding 80 °C is employed, the interval can be reduced by up to 2 hrs.												
Application data:	The paint shall be applied with a paint brush, a paint roller or by soaking or spray painting - air, pneumatic, high-pressure - Airless, Airmix The paint can be additionally dried. Data concerning conventional pneumatic spray painting Spray gun, for example EST 311, EST 314 or EST 115 Nozzle according to the required performance 14-20 Air pressure 2.5 - 3 atm. Data concerning the high-pressure spray painting Airless , e.g. VYZA VARIO 56-45 (EST) Nozzle 0.011 inch (0.28 mm) or 0.013 inch (0,33 mm) Nozzle pressure 22 - 28 MPa (220-280 atm.; 3200-4100 psi) Spray angle 20 - 60° Yellow gun filter 100/149 (mesh/µm), for the spray angle 60 °C red gun filter 200/74 (mesh/µm)												
Spreading capacity and recommended thickness:	The recommended coat thickness ranges from 60 to 120 µm, which depends mainly on the substrate roughness <table border="1" data-bbox="359 1032 1023 1245"> <tr> <td>Wet-film thickness WFT (µm)</td> <td>150</td> <td>300</td> </tr> <tr> <td>Dry-film thickness DFT (µm)</td> <td>60</td> <td>120</td> </tr> <tr> <td>Theoretical spreading capacity (m²/kg)</td> <td>5.60</td> <td>2.80</td> </tr> <tr> <td>Theoretical spreading rate (kg/m²)</td> <td>0.40</td> <td>0.50</td> </tr> </table>	Wet-film thickness WFT (µm)	150	300	Dry-film thickness DFT (µm)	60	120	Theoretical spreading capacity (m ² /kg)	5.60	2.80	Theoretical spreading rate (kg/m ²)	0.40	0.50
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Packaging:	Containers weighing 20 - 200 kg.												
Storage:	Store in original and well-closed containers in cool, dry and well-ventilated areas at temperature from +5 to +25 °C. Protect from freezing. Keep the mixture separated from drinks, foodstuff, feedstuff and medicine. Store away from the reach of children. The shelf life is a minimum of 12 months from the date of manufacture. The product must not freeze.												
Disposal of packaging and waste:	Product residues and contaminated packaging shall be disposed of as hazardous waste in accordance with the applicable regulations.												
Safety and hygiene:	When handling the product, observe the instructions provided in the safety data sheet. Observe the principles of personal hygiene. If on the skin, wash the affected areas with water and soap. If in the eyes: rinse with water. If swallowed, rinse mouth with water, do not induce vomiting. In case of health difficulties, seek medical attention.												
Legislation, certificates, attestations, other tested parameters:	See the Declaration of Conformity Consent No. 31015 on the suitability for application on railway vehicles, in the production of new railway vehicles and for repairs to and refurbishment of existing railway vehicles.												