

# RAILWAY COATING SOLUTIONS

WORLDWIDE APPROVALS



# RAIL VEHICLE MANUFACTURERS AND RAIL OPERATORS MORETHAN 40 COUNTRIES WORLDWIDE RELY ONREMBRANDTIN COATINGS.

## DESIGNING EXCELLENCE









### HIGH-TECH COATINGS FOR MANY DIFFERENT REQUIREMENTS

The history of Rembrandtin Coatings GmbH dates back to the year 1937. Today, the company is a specialist for high-tech coatings like railway coatings, protective coatings, high-temperature resistant systems, zinc flake coating systems or core plate varnishes. Decades of experience in niche markets make Rembrandtin a reliable partner for the general industry. Rembrandtin is a member of the KANSAI HELIOS Group, one of the top ten coatings companies of in Europe, and member of the worldwide KANSAI PAINT Group. KANSAI HELIOS is a system supplier for perfectly aligned coating systems: liquid coatings, powder coatings, e-coats, gelcoats as well es industrial adhesives and sealants.

#### INTERNATIONAL CERTIFICATIONS

Rembrandtin is equipped with international certifications for its tailored solutions for **local and long distance trains as well as for goods wagons**. All railway coating products are regularly certified to ensure high-quality standards and high performance.

### "DESIGNING EXCELLENCE" – R&D AT THE HIGHEST LEVEL

At KANSAI HELIOS research and development is based on the highest standards, extensive know-how and a passion for inventive product solutions. We drive progress and innovation in our high-end laboratories. Looking far ahead, our experienced R&D teams formulate, develop and test high-performance coatings and paints, chemicals for bleaching and cleaning as well as materials for sticking and sealing that meet the high criteria of future product quality – especially with regard to the environment.

### CREATING MORE VALUE FROM LESS RESOURCES

The KANSAI HELIOS Group is committed to the principles of sustainable development and relies on clean, energy-saving production technologies and the responsible use of resources. Accordingly, environmental protection and a strong ESG management are a key focus for us, not only in product development, but along the entire value chain and in all areas of the Group.



### RAILWAY COATINGS SINCE 1960

**Quality, efficiency** and the broad range of colour shades of Rembrandtin coatings have been convincing rail vehicle manufacturers and operators in more than 40 countries worldwide since 1960.

All our products are environmentally friendly, VOC compliant, easy to repair and fast drying. They protect trains against corrosion, changes in colour shade, graffiti and other damages – permanently. Economic efficiency is guaranteed. We attach great importance to innovation, appearance and design. Decorative effects are more relevant than ever, especially in public transport.

Our coatings offer a wide variety of design options: **metallic** and effect coatings can be applied to the most varied surfaces. Our metallic and effect paints are available as base or clear coat systems

### FIRE PROTECTION CERTIFICATION

All Rembrandtin railway coatings – standard systems and specific systems – fulfill the requirements for fire behaviour of materials and components of rail vehicles according to the **DIN EN45545 standard**.

### RAILWAY COATINGS PRODUCT PORTFOLIO

TRAIN TYPE	WATERBORNE	SOLVENTBORNE	PUTTY
PASSENGER WAGONS LOCOMOTIVES DIESEL TRAINS ELECTRIC TRAINS TRAMS METROS	2-Component Epoxy Primer 2-Component Epoxy Primer Filler 2-Component Epoxy Top Coat 2-Component PUR Base Coat 2-Component PUR Filler 2-Component PUR Top Coat 2-Component PUR Base Coat 2-Component PUR Clear Coat*	2-Component Epoxy Primer/Filler 2-Component PUR Base Coat 2-Component Epoxy Top Coat 2-Component HS Epoxy Monolayer 2-Component PUR Top Coat* 2-Component PUR Filler 2-Component PUR Clear Coat*	Two-Component Polyester Bahnspachtel (Long-term putty) Two Component Polyester Putty (Short-term putty) Two-Component Epoxy Putty
GOODS WAGONS	2-Component Epoxy Primer 2-Component Epoxy Top Coat 2-Component HS Epoxy Monolayer 2-Component PUR Top Coat* 1-Component Single Layer Coating	2-Component HS Epoxy Primer 2-Component PU-HS Top Coat 2-Component HS-Epoxy-Monolayer 1-Component Single Layer Coating 2-Component HS Epoxy Food Contact	/
TRACK BUILDING MACHINES	2-Component Epoxy Primer 2-Component Epoxy Top Coat 2-Component HS Epoxy Monolayer 2-Component PUR Top Coat* 1-Component Single Layer Coating	2-Component HS Epoxy Primer 2-Component PU-HS Top Coat 2-Component HS-Epoxy-Monolayer 1-Component Single Layer Coating 2-Component Epoxy Top Coat	/

<sup>\*</sup> high resistance to cleaning agents (anti-graffiti protection)

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### REMBRANDTIN COATING SYSTEMS FOR LOCAL AND LONG DISTANCE TRAINS

### WATERBASED COATING SYSTEMS

WATERBASED SYSTEMS	PRODUCT NAME	HIGHLIGHTS	APPROVALS
2-COMPONENT EPOXY PRIMER	EPOXY 61 S PRIMER	<ul><li>Applicable to steel, aluminium or stainless steel</li><li>High corrosion protection</li><li>Plasticized</li></ul>	ÖBB, DB, SBB
2-COMPONENT EPOXY TOP COAT	EPOXY 61 S TOP COAT	<ul> <li>High mechanical and chemical resistance</li> <li>Plasticized</li> <li>For thick-layer application</li> </ul>	ÖBB, DB, SBB
2-COMPONENT PUR PRIMER	REM PUR 81 PRIMER	<ul><li>Applicable to aluminium and plastic</li><li>Fast drying</li></ul>	ÖBB, DB, SBB
2-COMPONENT PUR FILLER	AQUA FILLER 41	<ul><li> High filling property</li><li> Fast drying</li><li> Good grindability</li></ul>	ÖBB, DB, SBB
2-COMPONENT PUR TOP COAT / CLEAR COAT	REM PUR 310 REM PUR 510 TOP COAT REM PUR 310 CLEAR COAT	<ul> <li>High covering power, gloss &amp; colour retention</li> <li>High resistance to and easy removal of graffity</li> <li>High scratch resistance</li> <li>Good chemical resistance</li> <li>Suitable for interior application</li> </ul>	ÖBB, DB, SBB
2-COMPONENT PUR BASE COAT	REM PUR 610 REM AQUA BASE COAT 101	<ul> <li>High covering power, high colour retention</li> <li>High resistance to and easy removal of graffiti</li> <li>Additional protective layer with clear coat</li> <li>High chemical resistance</li> <li>Low solvent content</li> </ul>	ÖBB, DB, SBB

### SOLVENTBASED SYSTEMS

SOLVENTBASED SYSTEMS	PRODUCT NAME	HIGHLIGHTS	APPROVALS
2-COMPONENT EPOXY PRIMER/FILLER	EPOXY 41 UNIVERSAL PRIMER EPOXY 51 UNIVERSAL PRIMER	<ul> <li>Applicable to steel, aluminium, stainless steel, nitro and various plastics (GFRP)</li> <li>High corrosion protection</li> <li>Plasticized</li> </ul>	ÖBB, DB, SBB
2-COMPONENT EPOXY TOP COAT	REMOPLAST DS GLIMMER	<ul> <li>High mechanical resistance</li> <li>High chemical resistance</li> <li>Plasticized</li> <li>For thick-layer application</li> </ul>	ÖBB, DB, SBB
2-COMPONENT HIGH SOLID EPOXY MONOLAYER	EP-ES LACK	<ul> <li>High mechanical resistance</li> <li>High chemical resistance</li> <li>Plasticized</li> <li>For thick-layer application</li> </ul>	ÖBB, DB, SBB
2-COMPONENT PUR TOP COAT	PUR 31 TOP COAT	<ul> <li>High covering power</li> <li>Good colour retention and high gloss</li> <li>High resistance to and easy removal of graffiti</li> <li>High resistance to chemicals</li> </ul>	ÖBB, DB, SBB
2-COMPONENT PUR FILLER	PUR PRIMER 51	<ul><li> High filling power</li><li> Fast drying</li><li> Good grindability</li></ul>	ÖBB, DB, SBB

### **PUTTIES**

PUTTY	PRODUCT NAME	HIGHLIGHTS
LONG-TERM PUTTY	2K PE-BAHNSPACHTEL (PUTTY) 2K-EPOXY PUTTY	Certified in combination with the entiry system according to nach EN 455454
SHORT-TERM PUTTY	PE-FASERSPACHTEL (PUTTY) PE-SOFTFEINSPACHTEL (PUTTY) 2K-EPOXY PUTTY	Certified in combination with the entiry system according to nach EN 455454

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### REMBRANDTIN COATING SYSTEMS FOR GOODS WAGONS

#### WATERBASED SYSTEMS

WATERBASED SYSTEMS	PRODUCT NAME	HIGHLIGHTS	APPROVALS
2-COMPONENT EPOXY PRIMER	EPOXY 61 S GRUND	<ul> <li>Applicable to steel, aluminium and stainless steel</li> <li>High corrosion protection</li> <li>Plasticized</li> </ul>	ÖBB, DB, SBB
2-COMPONENT EPOXY TOP COAT	EPOXY 61 S DECK	<ul><li> High mechanical resistance</li><li> High chemical resistance</li><li> Plasticized</li></ul>	ÖBB, DB, SBB
2-COMPONENT EPOXY MONOLAYER	REM ML 61 S	<ul><li>High corrosion protection</li><li>Allows very high layer thickness</li></ul>	1
2-COMPONENT PUR TOP COAT	REM PUR 310 DECKLACK REM PUR 310 CARGO	<ul><li> High covering power</li><li> Good gloss and colour-shade stability</li><li> Economical</li></ul>	ÖBB, DB, SBB
MONOLAYERS	KH-ES-LACK, KH-ES-LACK ÖBB	<ul><li>Maximum economic efficiency</li><li>Simple application</li></ul>	ÖBB, DB, SBB

### SOLVENTBASED SYSTEMS

SOLVENTBASED SYSTEMS	PRODUCT NAME	HIGHLIGHTS	APPROVALS
2-COMPONENT EPOXY PRIMER/ FILLER	EPOXY 51 UNIVERSALGRUND	<ul><li>Applicable to steel and aluminium</li><li>High corrosion protection</li><li>Plasticized</li></ul>	ÖBB, DB, SBB
2-COMPONENT HS EPOXY PRIMER	MSR-ULTRAPRIMER	<ul><li>Applicable to steel and aluminium</li><li>High corrosion protection</li><li>Low solvent content</li></ul>	/
2-COMPONENT EPOXY TOPC COAT	REMOPLAST DS GLIMMER	<ul><li>High mechanical resistance</li><li>High chemical resistance</li><li>Plasticized</li></ul>	ÖBB, DB, SBB
HIGH SOLID EPOXY MONOLAYER	REM EPOXY ES LACK	<ul><li>Excellent corrosion protection</li><li>Solid content up to 70%</li></ul>	ÖBB
HIGH SOLID PU MONOLAYER	UVC-PL-HS-ES LACK PU-MC 101	<ul><li>Easy application</li><li>High UV resistance</li><li>Economic efficiency</li></ul>	1
2-COMPONENT PUR TOP COAT	PUR 31 REM ACRYL 51 REM ACRYL 51 CARGO	<ul> <li>High covering power</li> <li>Color-shade stability and high gloss</li> <li>High resistance to and easy removal of graffiti</li> <li>High resistance to chemicals</li> </ul>	ÖBB







#### DESIGN DIVERSITY AND HIGH **ENERGY SAVING POTENTIAL**

Our high-solid and high-solid polyurethane primers provide the basis for a wide range of surface designs and effect coatings. Thanks to their short drying times and possible air drying at 20°C, they are the optimum energy-saving alternative.



### INTERNATIONAL APPROVALS

Rembrandtin railway coating systems are tested in practice and approved by a multitude of well-known railway companies in different countries. Our customers include manufacturers of the international railway vehicle industry in more than 40 countries worldwide - from the MAGLEV railway in Shanghai to the most recent fleet of the SBB Swiss Federal Railway. You too can profit from our approvals!







THE ENERGY-ALTERNATIVE: REDUCE DRYING TIMES WITH OUR HIGH-SOLID PRODUCT SOLUTIONS.







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