

## PRODUCT DATA

## HIGH PERFORMANCE EPOXY SYSTEM 9100

### DESCRIPTION

RUST-OLEUM High Performance System 9100 Topcoats are based on two-component, (low) solvent-based epoxy resins. The products contain special rust-inhibitive pigments and are lead- and chromate free.

### SYSTEMS

Base 9100 + Activator 9101: Standard grade

Base 9100 + Activator 9101HS: High Solids grade

Base 9100 + Activator 9101WG: Winter Grade, high solids, application at low temperature

### RECOMMENDED USES

RUST-OLEUM High Performance System 9100 Topcoats are designed for application on manually prepared rusted steel surfaces and can also be used on clean, blasted steel, primed steel, concrete and previously coated surfaces.

RUST-OLEUM 9100 Topcoats are primarily intended for brush and airless spray application and can also be applied by roller.

RUST-OLEUM 9100 Topcoats offer appropriate protection against strong chemicals, acids, alkalis and solvents; frequent product spillage and chemical cleaning; high humidity and moisture conditions. If good U.V. resistance is required RUST-OLEUM Polyurethane Topcoats 9200WB, 9600 or 9900 should be applied (except for the clear coatings).

RUST-OLEUM 9100 Topcoats can be applied on cleaned, sound mineral substrates, sound, well prepared previous coatings; porous substrates should be primed with RUST-OLEUM Impregnation Primer 5401; very dense substrates, like ceramic tiles, should be primed with RUST-OLEUM Super Adhesive 3333.

RUST-OLEUM 9100 Topcoats can be applied directly on RUST-OLEUM 9170/9180 Primers, RUST-OLEUM 9169 Epoxy Rust Primer or on RUST-OLEUM Speedy Recoatable Primer 569/580.

### TECHNICAL DATA

Base/Activator	HIGH SOLIDS		
	9100/9101	9100/9101HS	9100/9101WG
Mixing ratio (by volume)	1 : 1	1 : 1	2,5 : 2
Induction time	30 minutes (20°C/5 l)	15 minutes (20°C/5 l)	20 minutes (10°C/4,5 l)
Pot life	3 hours at 20°C	2,5 hours at 20°C	2 hours at 10°C
Appearance	High gloss	High gloss	Gloss
Colour	See colour card Colourshop	See colour card Colourshop	See colour card Colourshop
Density (mixed product)	1,25 kg/l ± 0.1	1,40 kg/l ± 0.1	1,37 kg/l ± 0.1
VOC content	218 gr/l	85 gr/l	99 gr/l
Solids content (vol %) (mixed product)	75 volume %	91 volume %	88,7 volume %
Viscosity (Krebs Stormer Units at 20C)	110-135	100-120	110-135
Recommended dry film thickness	150 µm	150 µm	150 µm
Corresponding wet film thickness	200 µm	165 µm	170µm
Heat resistance:	Immersion or wet heat	50°C	50°C
	Dry heat	100°C	100°C
Above 65°C discoloration may occur			

### Coverage

Theoretical at 150µm dry: | 5 m<sup>2</sup>/l | 6 m<sup>2</sup>/l | 5,8 m<sup>2</sup>/l

Practical: Practical coverage depends on many factors such as porosity and roughness of the substrate and material losses during application.

#### Rust-Oleum Netherlands B.V.

Braak 1, 4704 RJ  
P.O. Box 138, 4700 AC  
Roosendaal, The Netherlands  
T +31 (0)165 593 636  
F +31 (0)165 593 600  
info.nl@ro-m.com  
www.ro-m.com

#### N.V. Martin Mathys S.A

Kolenbergstraat 23  
B - 3545 Zelem  
Halen, Belgium  
T +32 (0)13 460 200  
F +32 (0)13 460 201  
info.be@ro-m.com  
www.ro-m.com

#### Rust-Oleum France S.A

11, Rue Jules Verne, B.P. 39  
95322 St-Leu-la-Forêt Cedex  
France  
T +33 (0)130 400 044  
F +33 (0)130 409 980  
info.fr@ro-m.com  
www.ro-m.com

#### Rust-Oleum UK Ltd.

Unit 5D, Alexandra Way  
Ashchurch B. Centre,  
Tewkesbury, Gloucestershire  
GL20 8NB, United Kingdom  
T +44 (0)1684 273 333  
F +44 (0)1684 273 331  
info.uk@ro-m.com  
www.ro-m.com

#### Rust-Oleum Mathys Italia s.r.l.

Via Mazzetta 36, 13856  
Vigliano Biellese BI, Italia  
T +39 015 8122 160  
F +39 015 8122 161  
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### Drying times

System	Temp (°C) / RV (%)	To touch (hour)	To handle (hour)	To recoat (hour)	Full hardness (days)
9100/9101	30/50	4	6	After 12 within 72	5
	20/50	6	12	After 16 within 72	7
	10/60	12	36	After 36 within 96	14
9100/9101HS	30/50	4	8	After 16 within 72	7
	20/50	6	12	After 16 within 72	10
	10/60	12	36	After 36 within 96	16
9100/9101WG	15/50	8	16	After 16 within 72	10
	0/60	24	48	After 48 within 9 days	21

### SURFACE PREPARATION

Remove grease, oil and all other surface contaminations by alkaline or high pressure (steam) cleaning in combination with appropriate detergents.

Sand previous coatings which are in good condition to remove gloss and to roughen the surface slightly, check compatibility. The surface must be clean and dry during application.

**Steel:** Remove loose rust, mill scale and deteriorated coatings by hand or power tool cleaning to St 2/3 (ISO 8501-01 : 1988). Large areas may be brush-off blasted to Sa 2 (ISO 8501-01 : 1988), blast profile max. 50 µm.

For immersion purposes, prepare to Sa 3 (ISO 8501-01 : 1988), blast profile max. 75 µm.

**Concrete and masonry:** New concrete or masonry should cure and dry for at least 30 days before applying the coating system.

Remove laitance, any loose or unsound concrete or deteriorated coatings. Smooth concrete should be roughened.

### DIRECTION FOR USE

Stir individual components thoroughly before mixing them together. Use a mechanical low speed mixer. Mix the product carefully during 3 minutes. Temperature of the mixed materials should be at least 10°C.

### APPLICATION & THINNING

**Brush/Roller:** Up to 10 vol.%; RUST-OLEUM Thinner 160.  
Use natural bristles, long hair brushes or medium nap polyamide (perlon 12 mm.) rollers. Roller application requires 2 coats to achieve recommended d.f.t.

**Airless spray:** Up to 10 vol.%; RUST-OLEUM Thinner 160.  
Pneumatic and electric airless equipment.  
Tip size: 0.013-0.021 inch.  
Fluid pressure: 150 - 225 bar.  
Avoid excessive film thickness.

**Cleanup:** Use RUST-OLEUM Thinner 160.  
Preferably use disposable brushes and/or rollers.

### APPLICATION CONDITIONS

Temperature of air and substrate between 10 and 35°C (for the **9100/9101WG** between 0 and 15°C) and relative humidity below 85%. The substrate temperature must be at least 3°C above dew point.

### REMARKS

Maximum dry film thickness per coat: 250 µm dry, equals 335µm wet (Standard)  
275 µm wet (**9100/9101HS**)  
285 µm wet (**9100/9101WG**)

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When the 9100 is in contact with water or chemicals discoloration can occur, especially when colours are made with the Colour Shop.

### SAFETY

Consult Safety Data Sheet and Safety Information printed on the can.

### SHELLIFE / STORAGE CONDITIONS

5 years from date of production in unopened cans, if stored in dry, well ventilated areas, not in direct sunlight at temperatures between 5° and 35°C.

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