Protective & Marine Coatings
PRODUCT DATA SHEET

KEM-KROMIK™ STEEL PROTECT VHS RAPID

1-PACK HIGH-SOLIDS SYNTHETIC RESIN COAT

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

A versatile 1-pack primer and protective finish for steel.
- Very fast initial drying and through drying, even at low temperatures
- Suitable for application as 1-coat-system in a dry film thickness range of 80 - 160 µm
- Economical

RECOMMENDED USE

Can be used as a coloured, fast curing corrosion protection coating for steel constructions. It contains corrosion protection pigments. Particularly suited for in shop application.

PRODUCT TECHNICAL DATA

Volume Solids: 65 ± 2% (ISO 3233-3)

Weight Solids: 81 ± 2%

VOC: 295 g/l determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
336 g/l calculated from formulation to satisfy EC Solvent Emissions Directive.
217 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK).

Colours: RAL colour shades.
Slight colour deviations are possible due to raw material characteristics.

Flash Point: 37°C.

Cleaner/Thinner: Cleaner 26 (for cleaning)
Thinner S for thinning with max. 3% to adapt the viscosity (stir slowly).
Thinning will affect VOC compliance, sag tolerance and dry film thicknesses.

Pack Size: Single component material:
250 kg (161.3 litre) and 30 kg (19.3 litre).
Volume will vary with colours and density.

Density: 1.55 kg/l (may vary with colours).

Shelf Life: 2 years from date of manufacture, stored in originally sealed containers in a cool and dry environment.

Recommended Application Methods:
Airless Spray, Conventional Spray, Brush and Roller

Typical Thickness:

Recommended Spreading Rate Per Coat

	Typical		Maximum Sag
Dry	80 µm	160 µm	320 µm
Wet	123 µm	246 µm	492 µm
Theoretical Consumption*	0.191 kg/m² 0.123 l/m²	0.382 kg/m² 0.246 l/m²	
Theoretical Coverage*	5.24 m²/kg 8.13 m²/l	2.62 m²/kg 4.06 m²/l	

* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment.

Film thickness will vary depending on actual use and specification.

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AVERAGE DRYING TIMES

For 80 µm Dry Film Thickness:

	+ 5°C	+ 20°C	+ 40°C	+ 80°C
Dust-dry (Drying Stage 1)	80 min	40 min	15 min	5 min
Dry to handle (Drying Stage 6*)	8 hours	4 hours	1.5 hours	45 min
To Recoat	8 hours	4 hours	1.5 hours	45 min

For 160 µm Dry Film Thickness:

	+ 5°C	+ 20°C	+ 40°C	+ 80°C
Dust-dry (Drying Stage 1)	160 min	80 min	30 min	10 min
Dry to handle (Drying Stage 6*)	12 hours	5 hours	3 hours	1.5 hours
To Recoat	12 hours	5 hours	3 hours	1.5 hours

*ISO 9117

Maximum recoat time is 6 months. Prior to further applications all contamination must be removed. In the case of extended recoating times consult Sherwin Williams customer service.

Final cure: 1-2 weeks, depending on film thickness and temperature.

These figures are given as a guide only. Factors such as air movement, film thickness and humidity must also be considered.

SURFACE PREPARATION

Ensure surfaces to be coated are clean, dry and free from all surface contamination such as oil, grease, dirt and corrosion products to achieve satisfactory adhesion.

For contaminated and weathered surfaces e.g. primed areas we recommend to clean with Cleaner Wash.

Steel surfaces shall be blast-cleaned to Sa 2½ according to ISO 8501-1 (ISO 12944-4)

MIXING

The material is supplied ready for use; stir thoroughly with a mechanical paint mixer prior to application.

During mixing and handling of the materials always wear protective goggles, suitable gloves and other protective clothings.

APPLICATION CONDITIONS

Substrate temperature shall be above + 5°C and at least 3°C above the dew point.

Material temperature shall be above + 5°C.

Relative air humidity shall be below 85%.

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for satisfactory application characteristics. Always purge spray equipment before use with listed cleaner. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Airless Spray

Tip Size: 0.38 – 0.53 mm (0.015 – 0.021 inch)

Fan Angle: 40° - 80°

Operating Pressure: min. 180 bar (2600 psi)

The airless spray details given above are intended as a guide only.

Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent satisfactory atomisation.

As conditions will vary from job to job, it is the applicators responsibility to ensure that the equipment in use has been set up to give the best results.

If in doubt consult Sherwin-Williams customer service.

Conventional Spray

Atomising Pressure: 3 - 5 bar (43 - 72 psi)

Tip Size: 1.5 – 2.0 mm (0.06 – 0.08 inch)

Brush and Roller

Brush and roller application is suitable.

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RECOMMENDED SYSTEMS

Steel, blast-cleaned to Sa 2½
Exposure to atmosphere:
1 - 2 x Kem-Kromik™ Steel Protect VHS Rapid
Overcoatable with 1-pack coatings based on synthetic resins
e.g. Kem-Kromik™ 6630 High Solid or Kem-Kromik™ CorroTop.

ADDITIONAL NOTES

Drying times and curing times should be considered as a guide only.

The product is not suitable for underwater exposure and permanent condensation.

Chemical resistance:
Resistant to weathering.

Temperature resistance:
Dry heat up to + 100°C.
In case of higher temperatures consult Sherwin-Williams customer service.

Numerical values quoted for physical data may vary slightly from batch to batch.

HEALTH & SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Whilst all statements made about our products (whether in this data sheet or otherwise) are correct and accurate to the best of our knowledge, we have no control over the quality or the condition of the substrate, the application conditions or the many other factors affecting your use and application of our product.

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