

RAYSTON SILVER 1K



TECHNICAL DATA SHEET

DESCRIPTION

Single pack moisture curing polyurethane coating filled with aluminium pigment.

FEATURE

Application:

- At subzero temperatures down to -18°C.
- At high relative humidity up to 99%.
- With no dew point restrictions.
- With no restriction on the maximum recoating interval.
- Over different type of coating systems.
- Directly to surfaces of ferrous and non-ferrous metals as a single-layer coating as well.

Provided:

- Excellent resistance to atmospheric influence and abrasion.
- Improves anticorrosion and barrier properties due to the presence of aluminum pigment.
- Excellent resistance to UV and colour stability.
- Long-term protection (more than 25 years) in case of use in systems with other compatible Rayston coatings.

RECOMMENDED TO USE

Steel and concrete surfaces:

- For structures in medium, high, very high and extreme atmospheric corrosivity categories (C3, C4, C5 and CX - ISO-12944-2 / 2018).
- For structures immersed in fresh, sea or brackish water compatible with cathodic protection as well (Im1; Im2 and Im4 - ISO-12944-2 / 2018).

Non-ferrous metals:

- As an adhesive or protective layer.

COMPATIBLE COATINGS

Depending on the operating conditions the material can be used with different types of coatings.

- Single pack, moisture cured polyurethane coatings (1pack PUR) of Rayston.
- Two-component epoxy (2pack EP) or polyurethane (2pack PUR) coatings of Rayston.

For details, please contact Rayston Technical Sales Support.

TECHNICAL DATA

Appearance

Color	Aluminium
Appearance	Semi-gloss coating

Material properties

Volume solids	60 ± 2 %
Density (at +20 °C)	1.11 ± 0.05 g/cm ³
VOC value	<265 g/l
Dry heat resistance (ASTM D2485)	
- Prolonged exposure	145 °C
- Short-term exposure	175 °C
Impact Resistance (ASTM 2794)	>5 J

SURFACE PREPARATION

Surface type	Minimum	Recommended
Surface profile	Ry5 (30–75 μm) (ISO 8503-1)	Ry5 (30–75 μm) (ISO 8503-1)
Steel surfaces	Sa 2 (ISO 8501-1)	Sa 2½ (ISO 8501-1)
Surfaces of non-ferrous metals and stainless steel	Clean with alkaline solution, rinse with water. (SSPC-SP 1)	Light surface roughness ISO 8501-2, ISO 12944-4
Galvanized surfaces	Clean with alkaline solution, rinse with water. (SSPC-SP 1)	Light surface roughness ISO 8501-2, ISO 12944-4
Concrete Surfaces	SSPC-SP 13/ NACE No. 6	SSPC-SP 13/ NACE No. 6

AMBIENT CONDITIONS

Ambient conditions

Air temperature	from -18 to +55 °C
Surface temperature	from -18 to +55 °C
Relative humidity*	30 – 99 %
Dew Point	Not limited. Surface to be dry to touch

Note:

- Do not apply coating during rain or snow, or if precipitation is expected before the applied coating becomes dry to touch.
- *At a relative humidity below 30%, it is recommended to use the Rayston Activator.

For details, please contact Rayston Technical Sales Support.



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THICKNESS & THEORETICAL SPREADING RATE

	Min.	Middle	Max.
Dry Film Thickness	40 µm	70 µm	100 µm
Wet Film Thickness	67µm	117 µm	167 µm
Spreading Rate	15 m ² /l	8.57 m ² /l	6 m ² /l

Note: Practical coverage depends on the application conditions, type of structure to be painted, roughness of the surface and application method.

DRYING TIME

For DFT of 70 µm	-10°C	0°C	5°C	10°C	23°C	40°C
Dry to touch	4 h	2h 30m	1 h	1 h	18 min	12 min
Dry to recoat with 1pack PUR, min ./ Dried to handle	25 h	21 h	13h 30m	10 h	5 h	2 h
Cure for service	25 h	21 h	13h 30m	10 h	5 h	2 h

Note:

- There is no maximum overcoating interval.
- Rayston Activator may shorter drying time of the coating.
- Drying and curing time determined at controlled temperature and relative humidity (RH) 60 - 80%.
- As the relative humidity of the air decreases, the curing time of the coating increases.

For details, please contact Rayston Technical Sales Support.

APPLICATION DATA

Stirring:

It is a single pack ready to use material. Prior to use, it must be thoroughly stirred with a low speed mixer, avoiding air entrapment. Constant stirring is not required. Before opening and stirring the temperature of material must be at least 3°C above dew point.

Thinning:

The addition of thinner is usually not necessary. If necessary Raystonthinner or Raystonthinner CC can be added up to 10 % to the volume.

Note: If other than recommended thinners are used the manufacturer is not responsible for deterioration of coating quality.

Cleaning:

After work all equipment shall be cleaned with the thinner Raystonthinner or Raystonthinner CC.

For details, please contact Rayston Technical Sales Support.

APPLICATION METHODS

Spray application:

Airless spray is the main method of application. For other spraying methods, viscosity correction may be required.

Brush:

Recommended for stripe coat application or minor repair touch-up.

Roller:

Not recommended to use roller for application of priming.

PACKAGING

Volume (liters)	Size of containers (liters)
10	10

STORAGE & SHELF LIFE

The product must be stored in original sealed containers. The storage conditions are to keep the containers in a dry, well ventilated space away from source of heat and/or ignition.

Storage temperature	from 5 to 30 °C
Shelf Life	18 months

Note: After lasting storage primer shall be stirred thoroughly until its precipitation is spread over the suspension homogeneously. Precipitation in primer does not change its properties or worsen its quality. After the expiration date has passed, it is necessary to check the quality of the paint material.

SAFETY

Use with adequate ventilation. Do not inhale aerosol. Avoid contact with skin. After contact with skin, wash immediately with detergent, soap and water. In case of contact with eyes, rinse immediately with water and seek medical advice immediately.

For detailed information on the health and safety protection for use of this product, see Safety Data Sheet (SDS).



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IMPORTANT NOTE

The above-mentioned information is given according to our laboratory tests and practical application experience.

The manufacturer takes into consideration the fact that the material can be used out of control; the manufacturer cannot give guarantees except of the material quality.

The manufacturer has the right to improve the product and change the above-mentioned data without preliminary notification.

THE PRESENT TECHNICAL DATA SHEET REPLACES ALL PREVIOUS EDITIONS.



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