High performance elastomeric coating combining superior anti-corrosion and waterproofing properties.

DESCRIPTION OF THE PRODUCT

FEATURES:

RD-Elastometal is a single-component, water-based elastomeric coating combining long-term anti-corrosion protection with permanent waterproofing properties.
Based on styrene acrylic resins, RD-Elastometal is designed for the protection of metal surfaces, structures, metallic roofs and sandwich panels exposed to weathering and aggressive corrosive environments.

Often considered a Direct-To-Rusty-Metal coating, RD-Elastometal can be applied directly onto rusty substrates after removal of loose rust. When adequate surface preparation is carried out, effective protection can be achieved without abrasive blasting, making the system suitable for both new construction and maintenance projects. As a **dry-fall** coating, overspray can easily be removed after spraying.

RD-Elastometal is virtually odour-free, **non-flammable** and **fast drying**. It is ideally suited for application in **densely occupied areas** and in sites where **solvent emissions are restricted or prohibited**, including sensitive industrial and commercial environments, ensuring safe use and minimal operational disruption.

RD-Elastometal is UV-resistant and can be used as both primer and finishing coat. Its permanent elasticity (≈ 200%) ensures excellent adhesion on flexible substrates such as metallic roofs and long-span steel structures, while effectively sealing gaps around rivets, bolts and interstices.

RD-Elastometal is part of the SCS – Single Coating System product range. An SCS system means that one single product provides all functions: primer, intermediate coat, and topcoat. ➡️ One product, multiple layers, full protection.

TYPICAL APPLICATION:

- ✓ Renovation of metallic roofs
- ✓ Protection of steel structures and engineered constructions
- ✓ Bridges, tanks and industrial installations
- ✓ Maintenance and refurbishment of historic and heritage metal constructions
- ✓ Application in occupied or sensitive environments (food & pharmaceutical facilities)
- ✓ Claddings and sandwich panels subject to aggressive environments

KEY FEATURES & BENEFITS:

- ✓ Combined anti-corrosion and waterproofing system with UV-resistant finish
- ✓ Direct-to-rust application (after proper preparation)
- ✓ Permanent elasticity (≈ 200%)
- ✓ Water-based, low VOC, non-flammable
- ✓ Fast drying – reduced downtime and site occupancy disruption
- ✓ Certified for lead encapsulation (ASTM E1795)
- ✓ Fire performance: classified BROOF (t1) according to EN 13501-5
- ✓ Suitable for corrosivity categories C3 to C5-H
- ✓ REACH compliant, PFAS-, APEO- and heavy-metals-free

SUBSTRATES:

- ✓ Carbon steel, cast iron, Corten steel
- ✓ Weathered galvanized steel (> 1 year)
- ✓ Aluminium, Copper, Lead (first coat diluted – see application section)
- ✓ Existing paints & coatings such as epoxies, polyurethanes, alkyds, acrylics…
- ✓ Also suitable for many other properly prepared substrates.

RECOMMENDED SYSTEMS

GENERAL PURPOSE APPLICATION – NON ISO 12944 CLASSIFIED

Typical 2-coat system for general-purpose projects where no specific corrosion protection standard is required.

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Elastometal	300 µm | 12 mils	2	0.67 Kg/m²	1.49 m²/Kg | 75 sq-f/gal

RENOVATION OF METALLIC ROOFS & GUTTERS

Metallic roofs with a slope higher than 4%

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Elastometal	350 µm | 14 mils	2	0.8 Kg/m²	1.25 m²/Kg | 65 sq-f/gal

Gutters and surfaces with ponding water

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Elastometal + RD-Roof Fleece	900 µm | 36 mils	3	2 Kg/m²	0.5 m²/Kg | 25 sq-f/gal

Full specifications and detailed information are available on our website in the Solutions section.

SYSTEMS ACCORDING TO ISO 12944 CLASSIFICATION

C5 High (H) – Durability above 15 and below 25 years before first major maintenance
Indoor: Buildings or areas with almost permanent condensation and high pollution.
Outdoor: Industrial and coastal areas with high humidity and aggressive atmospheres including high salinity.

Options	Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
# 1	RD-Elastometal	350 µm | 14 mils	2	0.8 Kg/m²	1.28 m²/Kg | 65 sq-f/gal
# 2	RD-Elastometal + RD-Monoguard	220 µm | 9 mils 80 µm | 3.2 mils	1 1	0.50 Kg/m² 0.19 L/m²	2 m²/Kg | 100 sq-f/gal 5.4 m²/L | 219 sq-f/gal

C4 High (H) – Durability above 15 and below 25 years before first major maintenance
Indoor: Industrial areas with high humidity and aggressive atmospheres (chemical plants, swimming pools).
Outdoor: Industrial areas and coastal zones with moderate salinity.

Options	Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
# 1	RD-Elastometal	300 µm | 12 mils	2	0.67 Kg/m²	1.49 m²/Kg | 75 sq-f/gal
# 2	RD-Elastometal RD-Monoguard	175 µm | 7 mils 80 µm | 3.2 mils	1 1	0.40 Kg/m² 0.19 L/m²	2.5 m² | 130 sq-f/gal 5.4 m²/L | 219 sq-f/gal

C3 High (H) – Durability above 15 and below 25 years before first major maintenance
Indoor: Buildings with moderate humidity and some air pollution (food processing plants, laundries, breweries).
Outdoor: Urban and industrial atmospheres with moderate sulphur dioxide pollution; coastal areas with low salinity.

Options	Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
# 1	RD-Elastometal	220 µm | 8.8 mils	2	0.5 Kg/m²	2 m²/Kg | 100 sq-f/gal
# 2	RD-Elastometal + RD-Monoguard	120 µm | 4.8 mils + 80 µm | 3.2 mils	1 1	0.27 Kg/m² 0.19 L/m²	3.7 m²/Kg | 190 sq-f/gal 5.4 m²/L | 219 sq-f/gal

(*) Number of coats
Depends on the application method, tools used and site conditions. Certain application methods may require additional coats. Achieving the specified dry film thickness in fewer coats is not recommended and may not be technically feasible.

(**) Theoretical consumption
Values are theoretical and may vary depending on surface profile, shape, roughness, porosity, application method and site conditions. Higher consumption should be anticipated.

Occasional contact with chemicals and/or intensive surface wear
The system can be top coated by one or two additional coats of RD-Hydrograff HP if not already specified in the system.

Limitation:
Not suitable for hot substrates (e.g. pipes, equipment) with continuous temperatures above 80 °C | 176 °F.

For project-specific recommendations, please contact your RD Coatings representative.

APPLICATION INSTRUCTIONS

APPLICATION CONDITIONS:

Ambient temperature:
- Minimum: 5°C | 41°F – beware on condensation risks and slow drying
- Optimal: 12-25°C | 54-77°F

Relative humidity: **maximum 80 %**
Surface temperature: minimum **3°C | 5°F above dew point**.
Avoid application during winter conditions or periods with high condensation risk.

APPLICATION METHODS:

Brush
Roller
Airless spray (recommended):
- Nozzle size: 0.015–0.023
- Pressure: ± 180 bar | 2600 psi

Note: Additional coats may be required depending on the application method.

SURFACE PREPARATION:

General-purpose (non-standardized preparation):

The substrate must be clean, dry, degreased, and free from dust, salts, oil, grease, and all non-adherent materials prior to application.

RD-Eco PowerClean is recommended as a pre-cleaning agent. Apply RD-Eco PowerClean, allow to react for 10–15 minutes, then rinse thoroughly using high-pressure water.

High-pressure washing (200–500 bar) using an oscillating turbo tip.

Other possible preparation methods:
- Manual or mechanical cleaning to ST2 acc. ISO 8501-1 | SSPC SP2–SP3
- Abrasive blasting to SA 2.5 acc. ISO 8501-1 | SSPC SP10
- High-pressure water jetting to WJ-4 acc. ISO 8501-4 | SSPC SP12

Specific substrates:
- Aluminium: clean with 10% diluted sulphuric acid or light sanding.
- Copper: clean with 10% diluted hydrochloric acid or light sanding.
- Existing paints & coatings: Only apply over sound, clean, and well-adhering coatings. Light to moderate sanding may be required. Perform adhesion test first.

Note: Surface preparation may affect finish and performance. Contact your RD Coatings representative for guidance.

DILUTION:

Steel & most surfaces: Product is ready-for-use.
Aluminium, Copper, Lead: dilute the first coat of RD-Elastometal with 25% water.

Dilute with **maximum 3%** water when applying by airless or in warm weather conditions (> 25°C / > 77°F).

DRYING TIME: (20°C | 68°F)

Touch dry: ± 3 hours
Recoatable: ± 6 hours – No maximum recoating window.
Drying times also depend on film thickness and ambient humidity.

CLEANING OF TOOLS:

Water.

SPECIFICITIES:

Mix homogenously with a paddle mixer at low speed.

TECHNICAL DATA

FINISH: Satin 15 % ± 5 (Gardner 60°), depending on the shade.

COLORS: White.
RAL, NCS and bespoke colours available via the RD Coatings tinting system.

DENSITY: 1.25 ± 0.05 Kg/L | ± 10.4 lb/gal (US)

SOLIDS CONTENT: In weight: 65 % ± 2
In volume: 56 % ± 2

VISCOSITY: 180 - 250 P (Brookfield 20RPM)

VOC CONTENT: < 8 g/L | 0.07 lb/gal (US)

FLASH POINT: Non-flammable.

STORAGE STABILITY: 24 months: keep away from heat and frost

PERFORMANCE STANDARDS & TEST RESULTS

Standard / Method	Short description	Result
ASTM D968	Abrasion resistance (falling abrasive)	Thickness loss ± 5 µm – very slight wear
ISO 2409 / ASTM D3359	Adhesion (cross-cut & tape test)	GT 0 / 5B – no coating removal
ISO 4624 / ASTM D4541	Pull-off adhesion strength	> 1.7 to > 4.8 MPa – excellent adhesion
ISO 1519	Flexibility – cylindrical mandrel	No cracking or visible defects
ASTM D522	Flexibility – conical mandrel	No cracking or visible defects
ISO 2812	Chemical resistance (24 h contact)	Mostly unchanged; check Performance Criteria for details
ISO 12944-6 (C5 H)	Cyclic corrosion test	Passes C5 High
ASTM D5894	Cyclic salt fog / UV exposure	No corrosion or blistering up to 5000 h
ASTM B117	Neutral salt spray (NSS)	Passes 1000 h – no defects
ISO 9227 / ISO 4628	Salt spray & coating degradation	Passes 1440 h
ISO 6270-2 / ISO 4628	Humidity resistance (condensation)	Passes 720 h
ISO 3231 (Kesternich)	SO_2 resistance in humid atmosphere	No undercutting; minor surface staining
ISO 1520 (Erichsen)	Cupping / deformability	12.65 mm – coating intact
ASTM D2794	Impact resistance	> 10 Nm – excellent flexibility
ASTM D412	Tensile properties	Elongation up to 150–210 %
EN 13501-5	Roof fire classification	BROOF (t1)
ASTM E84	Surface burning characteristics	Class A
EN 1186	Food contact – overall migration	Suitable for aqueous food contact
ISO 1522	Pendulum hardness (Persoz)	± 7 s – very flexible

Standard / Method	Short description	Result
ISO 15184	Pencil hardness	F
ASTM D2240	Shore A hardness	Shore A ≈ 85
ASTM D870	Water immersion	No defects after 12 months
ISO 16000-6	Indoor air VOC emissions	A+
Red List (LBC v4.0)	Restricted substances compliance	Compliant
ASTM E1795	Lead paint encapsulation	Complies – Type III
ASTM D2485	High temperature resistance	Up to 100 °C – adhesion maintained
ASTM D1653	Water vapor transmission	0.3 perms

DoP, EPD and/or performance criteria with more details are available upon request.

SAFETY DATA

Information related to hygiene and safety can be found in the Safety Data Sheet available on request.

DISCLAIMER

These specifications are given for information. Since the manufacturer is not able to check the application of the products, he cannot accept any responsibility for it. This technical data sheet replaces all previous editions.