High-performance, single-component solar reflective coating designed for Cool Roof systems.

DESCRIPTION OF THE PRODUCT

FEATURES:

RD-Sunguard significantly reduces heat absorption by reflecting a large portion of incoming solar radiation, contributing to improved thermal comfort, lower roof surface temperatures and a measurable reduction in cooling energy demand.

Formulated with a new generation of **waterborne fluoropolymer resins** combined with **advanced solar-reflective pigments**, RD-Sunguard delivers a **very high and durable Solar Reflective Index (SRI > 110)**. Its outstanding **UV resistance**, **dirt pick-up resistance** and **self-cleaning properties** help maintain a clean, white surface over time, ensuring long-term solar reflectance and thermal performance even under severe weathering conditions.

RD-Sunguard is a **single-component, water-based coating**, virtually odor-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.

Designed as a **high-performance finishing coat**, RD-Sunguard is typically applied as the final topcoat over RD Coatings roof renovation systems such as **RD-Elastometal** and **RD-Elastodeck**, providing a durable, UV-resistant and energy-efficient protective finish for both new and refurbished roofs.

Applied as a finishing coat over **RD-Monoguard**, RD-Sunguard integrates into a **complete anticorrosion coating system**, adding **enhanced chemical resistance**, long-term weathering durability and **durable self-cleaning properties**.

TYPICAL APPLICATION:

- ✓ Cool Roof systems
- ✓ Energy-efficient roof refurbishment
- ✓ Reduction of heat build-up on roofs
- ✓ Storage tanks, domes
- ✓ Energy-intensive buildings: data centers, refrigerated warehouses, industrial cold storage facilities.

KEY FEATURES & BENEFITS:

- ✓ High-performance Cool Roof coating
- ✓ Very high Solar Reflective Index (SRI > 110)
- ✓ Excellent UV resistance and dirt pick-up resistance
- ✓ Self-cleaning properties for long-term reflectance
- ✓ Fast drying – reduced downtime
- ✓ Water-based, non-flammable, virtually odor-free
- ✓ Improves thermal comfort and energy efficiency
- ✓ REACH compliant, APEO and heavy metals free

SUBSTRATES:

- ✓ RD-Sunguard can be applied on a wide range of substrates provided that an appropriate primer system is applied first. Typical substrates include:
  - Bituminous roofing, epdm, pvc membranes
  - Metal roofs and metal surfaces
- ✓ Refer to the Coating Systems section for detailed specifications.
- ✓ Existing paints & coatings such as epoxies, polyurethanes, alkyds, acrylics…

RECOMMENDED SYSTEMS

FLAT ROOFS

Application on sound bitumen roofing – no ponding water

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Elastodeck white + RD-Sunguard	450 µm | 18 mils 40 µm | 1.6 mils	1 1	1 Kg/m² 0.1 L/m²	1 m²/Kg | 50 sq-f/gal 10 m²/L | 440 sq-f/gal

Application on sound EPDM, PVC membrane – no ponding water

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Elastodeck white + RD-Sunguard	450 µm | 18 mils 40 µm | 1.6 mils	2 1	1 Kg/m² 0.1 L/m²	1 m²/Kg | 50 sq-f/gal 10 m²/L | 440 sq-ft/gal

/!\ First coat of RD-Elastodeck on EPDM or PVC should be diluted by 5% with water.

METAL ROOFS

Application on a sound metallic roof – no corrosion or delamination, no leakages

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Elastometal white + RD-Sunguard	175 µm | 7 mils 40 µm | 1.6 mils	1 1	0.4 Kg/m² 0.1 L/m²	2.5 m²/Kg | 130 sq-f/gal 10 m²/L | 440 sq-ft/Gal

⚠ **Important:** For **old, leaking or corroded roofs**, and for general **roof renovation projects**, consult the relevant **RD-Elastodeck and/or RD-Elastometal** solution pages and datasheets.

ANTICORROSION – METAL COATING

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.

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Monoguard + RD-Sunguard	200 µm | 8 mils 40 µm | 1.6 mils	2 1	0.46 L/m² 0.1 L/m²	2.15 m²/L | 87 sq-f/gal 10 m²/L | 440 sq-ft/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.

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Monoguard + RD-Sunguard	150 µm | 6 mils 40 µm | 1.6 mils	2 1	0.35 L/m² 0.1 L/m²	2.87 m²/L | 115 sq-f/gal 10 m²/L | 440sq-ft/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 sulfur dioxide pollution; coastal areas with low salinity.

Product	Minimum total dry film thickness in µm | mils	Minimum number of coats (*)	Total theoretical consumption ± (**)	Total theoretical coverage ± (**)
RD-Monoguard + RD-Sunguard	85 µm | 3.4 mils 40 µm | 1.6 mils	1 1	0.2 L/m² 0.1 L/m²	5 m²/L | 200 sq-f/gal 10 m²/L | 440sq-ft/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.

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: 0.010–0.012
- Pressure: 70-150 bar | 1000-2200 psi

Conventional (low pressure/HVLP):
- Nozzle size: 1.4 mm | 0.0551 in
- Pressure: 4-6 bar | 60-90 psi

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

SURFACE PREPARATION:

General:
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.

DILUTION:

Product is ready-for-use.
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: ± 30 minutes
Dust free: ± 45 minutes
Dry: ± 1 hour – 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: Soft 10% +/- 5 (Gardner 60°)

COLOR: White.

DENSITY: 1.10 ± 0.05 Kg/L | ± 9.18 lb/gal (US)

SOLIDS CONTENT:
In weight: 50 % ± 2
In volume: 44 % ± 2

VISCOSITY: 100 - 150 P (Brookfield 20RPM)

VOC CONTENT: < 25 g/L | 0.21 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 E903-20	Solar absorptance, reflectance and transmittance measured using an integrating sphere (UV-VIS-NIR spectrophotometer)	**Average solar reflectance: 85.9 %**
ASTM C1371-15	Determination of total hemispherical thermal emissivity of materials near room temperature using a portable emissometer	**ε = 0.89**
ASTM E1980-11	Calculation of Solar Reflectance Index (SRI) for horizontal and low-sloped opaque surfaces	**SRI ≈ 110**
ASTM E903-20	Solar absorptance, reflectance and transmittance measured using an integrating sphere (UV-VIS-NIR spectrophotometer) after UV ageing (4000 h in QUV)	**Average solar reflectance: 84.0 %**
ASTM C1371-15	Determination of total hemispherical thermal emissivity of materials near room temperature using a portable emissometer after UV ageing (4000 h in QUV)	**ε = 0.87**
ASTM E1980-11	Calculation of Solar Reflectance Index (SRI) for horizontal and low-sloped opaque surfaces after UV ageing (4000 h in QUV)	**SRI ≈ 104–105**

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.