



VISION



Our vision is to transform the African construction industry with cutting edge building materials, setting new benchmarks for quality and sustainability.

Our mission is to lead Africa's building materials market, providing top-tier, sustainable products to enhance infrastructure and living standards

MISSION



RN02 - Relyon CorroShine

TECHNICAL DATA SHEET

(Premium Polyurethane Topcoat)

Physical Properties:

- ❖ **Product Code:** 3.44
- ❖ **Available Colours:** Relyon Colour shades
- ❖ **Finish:** Gloss
- ❖ **Volume Solids:** Approximately 58%
- ❖ **Specific Gravity:** Around 1.3 g/ml
- ❖ **VOC Content:** Approximately 387 g/liter
- ❖ **Flash Point:** Base > 25°C, Hardener > 40°C

Relyon CorroShine This polyurethane topcoat provides exceptional gloss and color retention, delivering a tough and durable finish. It offers strong resistance to oil and chemical spills and can be applied at a dry film thickness of up to 100 microns in a single coat without compromising its gloss finish. Suitable for direct application on various metals, it provides protection in mild industrial environments.

Physical Characteristics:

Available Colors: Grey, Red-brown, Aluminum, and other selected shades

Finish / Visual Aspect: Semi-gloss

Volume Solids Content: Approximately 78%

Density: Around 1.4 g/ml

VOC Content: Roughly 220 g/liter

Flashpoint: Base > 25°C, Hardener > 40°C

Usage Information:

- **Mixing Ratio:** By volume, base to hardener: 75:25 [3:1]
- **Film Thickness:**
 - **Dry Film Thickness per Coat:** Range: 100-300 µm; Recommended: 150 µm
 - **Wet Film Thickness per Coat:** Range: 130-385 µm; Recommended: 190 µm
 - **Theoretical Coverage Rate:** Range: 7.8-2.6 m²/l; Recommended: 5.3 m²/l

Curing Times (at different substrate temperatures):

- **10°C:**
 - Touch dry: 4 hours
 - Dry to handle: 12 hours
 - Full cure: 8 days
 - Pot life: 4 hours
- **23°C:**
 - Touch dry: 2 hours
 - Dry to handle: 8 hours
 - Full cure: 5 days
 - Pot life: 2 hours

Notes on Drying and Curing:

Drying and curing times are determined under specific conditions with humidity below 85% and using the average Dry Film Thickness (DFT). Actual times may vary depending on factors such as film thickness, environmental conditions, ventilation, and substrate temperature.

Recoating Information:

Recoating Intervals Based on Substrate Temperature:

At 10°C, 23°C, and 30°C:

Minimum time for recoating with 2-pack products: 18 hours, 8 hours, and 6 hours, respectively

Maximum recoating time: Indefinite at all temperatures

General Recoating Guidelines:

The best intercoat adhesion is achieved when the next layer is applied before the previous one has fully cured. In cases of extended recoating times, it may be necessary to roughen the surface to ensure proper adhesion. Conditions may vary based on local climates and application circumstances.

Surface Preparation:

Steel - Abrasive Blast Cleaning

Ensure all surfaces are clean, dry, and free of contaminants. Treatment should follow the guidelines of ISO 8504:2000.

- Grind all edges to at least a 2 mm radius.
- Remove weld spatter and smooth weld seams using disc grinders, chipping hammers, or suitable power tools.
- Stripe coat sharp edges, weld seams, and corners, or other areas prone to receiving less than the required dry film thickness.
- Surfaces should be blast-cleaned to a minimum of Sa 2½ (ISO 8501-1:2007), with a surface profile and anchor pattern of 40-70 µm.
- Abrasives must be free of oil, grease, moisture, and chloride contamination.

Coated Substrates

Ensure all surfaces are clean, dry, and free from contamination, in accordance with ISO 8504:2000.

- Verify that the existing coated substrate is compatible with the chosen paint system.
- For sweep blasting, use fine abrasives to prevent damage to the existing coating system.
- When recoating aged surfaces, damaged coatings should be removed to a firm edge. Light abrasion or sweep blasting is recommended to create a surface profile for adhesion.
- For zinc primed surfaces, ensure the primer has fully cured. Remove zinc salts by high-pressure freshwater cleaning.

For additional information, contact your local Relyon representative.

Application Instructions:

Mixing

The product is supplied in two separate containers as a complete kit. Always mix the entire unit as provided in the specified ratios. Avoid mixing more than what can be applied within the recommended pot life.

Stir the base component (Part A) thoroughly using a clean mechanical mixer.

Gradually add the curing agent (Part B) and continue mixing until fully blended.

Be careful not to over-mix, as this could introduce air into the mixture, leading to poor application results. If a thinner is required, only add it after both components have been mixed.

The minimum advised temperature for the mixed paint is 15°C, regardless of the substrate temperature. If the temperature is lower, more thinner may be needed to achieve the correct application viscosity. This, however, could lower sag resistance and slow down the curing process.

Application Conditions

The surface temperature must be at least 10°C and at least 3°C above the dew point.

Measure temperature and relative humidity near the substrate.

The maximum recommended surface temperature is 40°C, although higher temperatures are possible if dry spray is avoided by adjusting the spray technique and, if necessary, thinning the paint. In extreme situations, it may be necessary to apply a thinner coat to avoid sagging.

Ensure adequate ventilation in confined spaces during both application and drying. Always follow local regulations. For specific recommendations, consult your Relyon representative.

Application Methods

Airless Spray:

- Pressure at the nozzle: 120 - 150 bar
- Nozzle size: 0.38 - 0.43 mm
- Spray angle: 40 - 80 degrees
- Thinner volume: 0 - 3%
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Air Spray:

- Pressure: 4 - 5 bar
- Nozzle size: 1.2 - 1.8 mm
- Thinner volume: 5 - 10%

Brush/Roller:

Suitable for application with a thinner volume of 0 - 5%.

Use Relyon PU Thinner if thinning is required after mixing the two components. The recommended thinner level depends on the film thickness and conditions. In some cases, the thinner quantity may exceed the suggested level. However, excessive thinning should be avoided as it may decrease sag resistance, slow curing, and potentially cause solvent entrapment, which could lead to issues like blistering, pinholes, or other coating defects.

Always use Relyon PU Thinner as the thinner and cleaner.

Film Thickness

The coating should be applied evenly to achieve the specified wet film thickness. Use a wet film gauge to ensure the correct thickness is being applied.

Over-application, excessive thinning, or improper techniques may lead to paint runs or sagging. If such issues are noticed while the paint is still wet, they can be corrected by brushing the affected areas.

If the defect is found after the paint has cured, sand down the affected area until smooth and reapply an additional layer of paint.

Stripe Coating

To achieve the desired film thickness in specific areas, such as edges, corners, and weld seams, stripe coating may be necessary. Apply with a round brush and ensure all surfaces are adequately covered. Be cautious not to apply too much paint, as it may cause brush marks or trap air, which can negatively impact the coating's performance.

Additional Usage Guidelines

For Metallic Shades:

The final appearance of metallic colors can vary depending on factors such as application method, conditions, film thickness, and substrate type. Due to these variations, metallic finishes may not match standardized color codes like RAL or BS exactly.

For further guidance, please contact your local Relyon representative.

Additional Product Information

Storage and Shelf Life

The product should be stored following local regulations. Store the containers in a dry, cool, and well-ventilated area, away from heat and ignition sources. Ensure the containers are tightly sealed and kept in their original packaging until needed.

Partially used containers must be properly resealed and stored as per the guidelines in the relevant MSDS (refer to section 7 for more details).

Health and Safety

Always follow the precautionary instructions on the product label. A material safety data sheet (MSDS) is available on request, and both national and local safety guidelines should be adhered to. This product is designed for use by professional applicators.

It is essential to prevent skin and eye contact by wearing protective gear, including overalls, gloves, goggles, and a mask. Spray application should be done in a well-ventilated environment. As the product contains flammable components, it must be kept away from open flames and sparks. Smoking in the vicinity is strictly prohibited. Proper ventilation should be in place to keep airborne concentrations below the Occupational Exposure Standards during application and drying processes.

If natural ventilation is insufficient, such as during painting in enclosed spaces, local exhaust ventilation must be used to control exposure. Where this isn't feasible, suitable respiratory protective equipment should be worn. For spray applications or in situations where OES might be exceeded, follow the recommended respiratory protection guidelines, such as those outlined in BS4275:1974, which details the selection, use, and maintenance of breathing apparatus. Ensure the safety of others in the surrounding area.

Disclaimer

The information provided in this data sheet is based on our best knowledge. However, we cannot control the quality or condition of the substrate and other factors that might affect the product's application and performance. Therefore, we assume no responsibility for any loss, damage, or performance issues arising from the use of this product. Users are encouraged to conduct their own testing to determine the product's suitability for their intended application.

This document replaces any previous data sheets related to this product and contains essential information that must be shared with users. Users must assess the product's appropriateness for their specific application and surface, as we cannot control these variables. Moreover, users should verify the product's performance in conditions different from those outlined in this data sheet. Proper control procedures should be implemented. If more information is needed, feel free to contact our Technical Department.

Relyon Coatings follows a continuous development policy, and technical details may be updated based on new experiences or information.