be different.

KROMA EDGE

— BEYOND REFLECTION —

KROMA EDGE Instruction Manual

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About KROMA EDGE

KROMA EDGE utilizes advanced **Self-Organization Technology**, allowing metallic particles to rise to the surface of the coating film and align themselves uniformly.
This process enables an unprecedented **mirror-like reflection and deep metallic brilliance**, achieved **solely through painting**, without additional plating or polishing processes.

IMPORTANT NOTICE

Before applying KROMA EDGE, **READ THIS MANUAL CAREFULLY**.
KROMA EDGE is a **two-component coating system (with hardener)** and behaves fundamentally differently from conventional metallic or urethane paints.
Failure to follow these instructions **WILL result in coating defects or performance loss**.

Product Components and Lineup

KROMA EDGE Sets

Small Set (Total mixed volume: 140 g)

- Mirror Seeds Formula: 20 g
- Binder: 50 g
- Hardener: 20 g
- Thinner: 50 g

Medium Set (Total mixed volume: 420 g)

- Mirror Seeds Formula: 60 g
- Binder: 150 g
- Hardener: 60 g
- Thinner: 150 g

Large Set (Total mixed volume: 1,260 g)

- Mirror Seeds Formula: 180 g
- Binder: 450 g
- Hardener: 180 g
- Thinner: 450 g

Extra Large Set (Total mixed volume: 2,520 g)

- Mirror Seeds Formula: 360 g
- Binder: 900 g
- Hardener: 360 g
- Thinner: 900 g

Ultra Large Set (Total mixed volume: 10,080 g)

- Mirror Seeds Formula: 1,440 g
- Binder: 3,600 g
- Hardener: 1,440 g
- Thinner: 3,600 g

KROMA EDGE Dedicated TOPCOAT CLEAR

Topcoat Clear 180 Set (Total mixed volume: 378 g)

· Clear Base: 180 g
· Hardener: 18 g
· Thinner: 180 g

Topcoat Clear 900 Set (Total mixed volume: 1,890 g)

- Clear Base: 900 g
- Hardener: 90 g
- Thinner: 900 g

Topcoat Clear 3600 Set (Total mixed volume: 7,560 g)

- Clear Base: 3,600 g
- Hardener: 360 g
- Thinner: 3,600 g

Mixing Ratio and Mixing Procedure(Important)

KROMA EDGE

- **Add Reducer to Binder**
  Add **100% Reducer (50 g)** to **KROMA EDGE Binder (Resin) 50 g**.
- **Add Hardener**
  To the **100 g mixture above**, add **20% Hardener (20 g)**.
- **Mix Thoroughly**
  Thoroughly stir the **total 120 g mixture** until fully uniform.
- **Add Mirror Seeds Formula**
  Mirror Seeds Formula (metallic filler) **settles easily**.
  Shake well before use, then add **20% (20 g)** to the **100 g mixture prepared in Step 1**, and mix thoroughly.

KROMA EDGE Dedicated TOPCOAT CLEAR

Clear Base : Hardener = 10 : 1
Thinner: **70–100% relative to the clear base**

(180 / 900 / 3600 sets as specified)

⚠ **WARNING:**
Improper mixing ratios or insufficient agitation **WILL cause uneven metallic alignment and coating failure.**

Painting Specifications

KROMA EDGE Item	Mixing Amount	Mixing Order	Recommended Film Thickness	Drying Conditions	Pot Life
KROMA EDGE Binder (Resin)	50g	1	25 ± 5 μm	60°C: 1 hour or longer 20°C: 24 hours or longer	3 hours
Reducer	50g	2			
Hardener	20g	3			
Mirror Seeds Formula (Metallic Filler)	20g	4			

- **Recommended Film Thickness:**
  25 ± 5 μm (0.025 ± 0.005 mm)
- **Pot Life:**
  Limited working time after mixing binder and hardener
- **Forced Drying:**
  60°C (140°F) for a minimum of 1 hour,
  followed by **approximately 24 hours at room temperature**

KROMA EDGE Dedicated Topcoat Clear Item	Mixing Order	Recommended Film Thickness	Drying Conditions	Pot Life
Base（Main）	100g	25 ± 5 μm	60°C: 1 hour or longer 20°C: 24 hours or longer	4 hours
Hardener	10g			
Reducer	70 – 100g			

- **Recommended Film Thickness:**
  25 ± 5 μm (0.025 ± 0.005 mm)
- **Pot Life:**
  Limited working time after mixing binder and hardener

Materials must be mixed strictly in the order indicated above.
Failure to follow the specified mixing order may result in improper performance.

Spray Gun Requirements

Application Area	Recommended Spray Gun Nozzle	Recommended Air Pressure
10cm x 10cm	Airbrush nozzle Ø 0.3–0.5 mm	0.03–0.1 MPa
50cm x 50cm	Spray gun nozzle Ø 0.7–1.4 mm	0.2–1.0 MPa
100cm x 100cm	Spray gun nozzle Ø 1.4–2.0 mm	0.5–1.3 MPa

The coating film **MUST remain wet until spraying is completed**.

When painting large objects:

- Increase nozzle size as required
- Control spray time and film thickness carefully

⚠ Large-area applications **REQUIRE advanced spraying skill and proper workflow** to maintain mirror quality.

Ideal Environmental Conditions and Application Settings

Ambient Temperature & Humidity	20°C or higher, humidity has no significant effect	At temperatures below 20°C, solvent evaporation slows down, which may cause pinholes on the coated surface.
Atomization Pressure	Higher pressure is preferable	Atomization pressure affects surface smoothness. KROMA EDGE tends to level less easily; finer atomization improves smoothness.
Material Output (Fluid Volume)	Lower output is preferable	Reducing output and achieving finer atomization improves smoothness. However, if output is too low, drying becomes too fast and may interfere with self-organization, resulting in reduced gloss.
Gun Speed	Slower speed is preferable	Faster gun movement produces a thinner film, which may negatively affect self-organization and reduce gloss.
Gun Movement Technique	Apply continuously until all coated areas are dry	When coating large areas, drying times differ between the first and last sections. Adjust application to prevent mist from the final passes from settling on areas coated earlier.
Film Thickness	15–30 µm	Below 15 µm, the substrate may influence smoothness. Above 40 µm, sagging may occur.
Setting Time	Until solvents evaporate and gloss appears	When applying KROMA EDGE in two or more coats, always apply the next coat only after self-organization is complete and sufficient gloss has developed.

Surface Preparation and Application Conditions

- Apply a suitable primer (surfacer), then sand with **#600–#1000 grit**.
- **DO NOT apply** KROMA EDGE over absorbent substrates or insufficiently cured base coats.
  This **WILL cause shrinkage and loss of surface smoothness**.
- Degrease using **silicone remover or isopropyl alcohol only**.
- Use **low-lint, low-oil wipes**.
- Always strain paint using a **~5 µm strainer or Yoshino paper**.

CRITICAL APPLICATION RULES

❌ DO NOT

- Apply mist coats
- Apply tack coats

✅ MUST

- Apply **one continuous wet coat**

⚠ **WARNING:**
Failure to apply a full wet coat **WILL result in pinholes, fish eyes, or loss of reflectivity**.

Film Thickness Control

⚠ **WARNING:**
Film thickness exceeding **40 µm (0.040 mm) WILL cause cracking, sagging, or coating failure**.
Strict film thickness control is mandatory.

Environmental Conditions

- **Minimum application temperature: 20°C (68°F)**

⚠ Applying below this temperature **WILL delay solvent evaporation and WILL cause pinholes or surface defects**.

Coating Film Structure

After application, the coating consists of:

1. Binder layer
2. Reducer (thinner) layer
3. Mirror Seeds Formula layer

Immediately after spraying, the surface may appear slightly cloudy.
As solvent evaporates, **self-organization occurs**, forming the metallic mirror layer.
DO NOT disturb the surface during this process.

Number of Coats

- Standard method: **ONE COAT ONLY**
- A second coat is **ONLY permitted** when:
  - Self-organization is fully completed
  - Metallic film is completely formed
  - A uniform mirror surface is visible

⚠ Applying additional coats prematurely **WILL permanently damage the chrome-like surface**.

- **Maximum coats: 3**

Rework Procedure

If defects persist after 2–3 coats:

- Remove coating with appropriate thinner
- Allow full drying
- Reapply from the beginning

Drying Process

After metallic film formation:

- Wait **5 minutes**

- Force dry at **60°C (140°F) for at least 1 hour**
- Then dry **24 hours at room temperature**

Topcoat Clear Application

⚠ WARNING – CLEAR COAT APPLICATION

- Apply clear **ONLY after KROMA EDGE is fully cured**
- Applying clear too early **WILL soften the resin layer and WILL cause permanent cloudiness or distortion**
- Slight cloudiness immediately after clear application is normal and will recover as curing progresses

⚠ ONLY KROMA EDGE Dedicated Topcoat Clear is approved.
Use of non-approved clear coats constitutes **improper application**.

Shelf Life

This product **MUST be used within 3 months after opening**.

Key Technology Advantage

Unlike conventional chrome-like coatings, KROMA EDGE's metallic layer cures while remaining firmly bonded to the substrate.
This prevents metallic particle lifting during clear coating and **maintains high reflectivity even after topcoat application**.

DISCLAIMER

KROMA EDGE performance is guaranteed **ONLY when applied strictly in accordance with this instruction manual**.
The manufacturer assumes **no responsibility** for defects caused by improper surface preparation, application outside recommended conditions, or use of non-approved materials.

Troubleshooting

Issue	Cause	Corrective Action
Gloss gradually decreases during continuous application	Mirror Seeds Formula settled in the cup	Stir periodically or apply while continuously agitating the paint to prevent Mirror Seeds Formula from settling.
	Pot life was exceeded	Mirror Seeds Formula begins its pot life once mixed with Binder or other components. Mix immediately before application.
Poor gloss / pinholes appear	Insufficient application volume (insufficient amount for proper alignment of Mirror Seeds Formula)	Apply KROMA EDGE wet and increase film thickness sufficiently.
	Mist from the second coat remained on the first coat after film formation	After film formation of the first coat, apply the second coat wet and evenly over the entire surface.
Sagging and cracking occur on vertical or inclined surfaces	Excessive film thickness (40 µm or more)	Keep film thickness below 40 µm and adjust the number of coats and application conditions to achieve proper appearance.
Slight haze appears after KROMA EDGE application	Forced drying was performed before self-organization was completed	Always allow self-organization to complete and the surface to become mirror-like, then wait approximately 5 minutes before forced drying.
Poor surface smoothness after drying	Insufficient atomization of spray	Increase atomization pressure and increase material output.

Manufacturer Information

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