

VERZINKSHOP CARBON CONDUCTIVE PAINT MANUAL

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Carbon Conductive Paint is a conductive water-based paint. This allows you to easily make objects conductive for the electroforming process. This water-based paint has a high carbon content and low flow resistance, so details are well preserved and the paint dries quickly.

The heavy graphite sinks to the bottom. Shake very well before each use or stir. After standing still for a long time, a lump may form.

Surfaces & preparation

Non-porous (plastic, resin, ceramic, metal, glass):

- Degrease. Light matting (p400–600) or adhesion primer. Dust removal.

Porous/organic (wood, cardboard, dried flowers, leaves, textiles):

- First seal (electroforming sealer / clear varnish). Allow to cure completely.

Glass/gemstones:

- Light sanding or primer for better adhesion.

Apply (always shake / stir very well first)

Brush/brush

- 1–2 thin layers. Smooth out stripes. Dry completely between coats.

Dipping

- Dipping
- slow sweeping
- shaking off drops
- Let it dry hanging.
- Remove drip immediately (smooth layer = better conductivity).

Spraying/airbrush

- Apply diluted in several mist layers (2–4).
- Nozzle ≥ 0.5 mm is preferable.

Thinning (affects conductivity & layer build-up)

- Thinner: clean/distilled water or other water-based paint thinner.
- Start for airbrush: 2 : 1 (paint : water).
- Thinning can (spray): up to approx. 1 : 3 (paint : water) → more layers needed.
- Note: diluting too much = lower solids per layer ⇒ higher resistance per layer.
- Always shake/stir very well again after diluting.

Drying & control

Dust dry: within 10-20 minutes. Can be painted over 20–30 min (20 °C, good ventilation).

Bath-ready usually after 3-4 hours (depending on the surface).

Multimeter check: measure line resistance (10 cm) between points.

- Guideline: $\approx 1000\text{--}2500$ Ohm per 10 cm (depending on layer thickness).
- Too high? Apply 1–2 more thin coats and let it dry completely.

The drier the layer, the lower the resistance.

Storage & maintenance of the paint

- Heavy graphite filling sags → vigorous shaking/stirring before each use.
- Thickened by evaporation? add distilled water; mix again.
- Too much water increases resistance and can reduce adhesion.
- Close the jar tightly; store cool/dry, out of sunlight; avoid frost.

WASTE & DISPOSAL

Never pour anything down the sink. Collect all process fluids and rinse water as chemical waste.

Drain

Liquid residues of carbon paint: RCA.

Rinse water / washing water / wet wipes: KCA.

DRY, fully cured paint residues on a cloth/stirrer: residual waste.

Empty jars/cans:

- drain and dry out completely
- residual waste; with liquid inside: RCA.

Technical characteristics

Property	Specification
Basis	Acrylic paint (graphite-filled)
Conductivity (practical)	Line resistance ~ 1.0–2.5 kΩ / 10 cm (layer thickness dependent)
Color	Dark grey/black
Dry	<ul style="list-style-type: none"> • Dust dry 10-20 minutes • Can be painted over 20–30 min (20 °C)
Dilute	Water; 2:1 (paint:water) to 1:3 (paint:water) for spraying
Fix	Brush, dipping, spraying/airbrush
Film thickness per layer	Approx. 5–20 µm (dilution/technique dependent)
Temperature resistance (dry film)	Up to approx. 60 °C
Storage	5–25 °C, tightly sealed
Remark	Not for very large objects

Warning!

- Do not work with the products without first reading and understanding the safety information.
- The safety data sheet can be found on the product page or can be requested from verzinkshop.nl by e-mail: info@verzinkshop.nl
 - Do you have any questions? Contact us via:
 - Mail: info@verzinkshop.nl
 - Whatsapp or call: +31 6 28090022
 - www.verzinkshop.nl

Safety

- Always wear a dust mask, respirator, gloves, and apron when necessary.
 - Always treat any chemical as if it could kill you.
- Always label buckets and storage containers with a permanent marker so that you and others know what's inside.
- Never pour water into acid; it can heat up and explode. Always pour acid into water.
- Never leave electroplating baths or other systems that use power unattended. These products may cause a short circuit and cause a fire.
- Never come into direct contact with chemicals. They can cause serious burns or other damage and are very dangerous substances if not treated with respect.
- Never think you can get away without taking safety precautions! That is not possible!
 - Never leave the lids off the tanks when not in use. They will fall over!
 - Always work safely and ensure good protection and ventilation.
- The safety data sheet can be found on the product page or can be requested from verzinkshop.nl by e-mail: info@verzinkshop.nl

Disclaimer

Did you find an error or something unclear in the manual? Please let us know via info@verzinkshop.nl

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