VERZINKSHOP CONSERVE & CONSERVE 3D CONDUCTIVE PAINT MANUAL

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Introduction

Conserve and conserve 3d are conductive acrylic sealers that leave a hard, waterproof and electrically conductive layer after drying. They are designed for electroforming a variety of hobby materials such as 3D prints, dried plants and flowers, wood, paper/cardboard, jewelry and glass. In most cases, they act as a sealer and conductive coating in one step, so a separate sealer is not necessary.

The difference between the two products is the film thickness.

Conserve builds a fuller, firmer layer. This makes it ideally suited for softer or porous surfaces, and it can also be used on slightly moist organic material such as a freshly picked flower.

Conserve 3D has a thinner film and is intended for drier, harder or finely detailed objects, where sharp contours must be preserved.

Both products are not intended for very large organic items.

Shake vigorously or stir thoroughly before use. If desired, can be diluted with acetone to build up several thin layers; Keep in mind that strong thinning adjusts conductivity, requiring additional layers. Heavier solids can settle during storage; Homogenise well again before each use.

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.

Please note!

The lacquer is flammable (acetone base). Always work with good ventilation and avoid open flames, sparks and heat sources.

Short features

- 2-in-1: sealer + conductive coating
- Applicable to plastics/3D prints, organic material, wood, cardboard, metal and glass
- Can be applied with brush, dipping or spraying/airbrush
- Can be diluted with acetone for thin, repeatable layers
- Flammable; Ventilate well and avoid ignition sources

Surfaces & preparation

The paint adheres very well to almost all surfaces without a preparation or a degreased step. If necessary, you can prepare the material as follows:

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

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

Porous/organic (wood, cardboard, dried or slightly moist plant material, textiles):

- Remove loose dust.
- No sealing required: conserve acts as sealer + conductive layer.
- Immerse instantly.

Glass/gemstones:

- Light sanding or primer for better adhesion (optional).

Apply (always shake/stir well first)

The paint is extremely suitable and preferable for immersing objects and materials. The paint dries very quickly!

Dipping

- Immerse in quick succession (to remove air bubbles)
- Slow Strike
- Shaking off drops over the can or a suitable container
- Hanging to dry
- Iron off drips immediately (smooth layer = better conductivity)

Brush/brush

1–3 thin layers; draw stripes flat; Dry intermediate layers completely.

Spraying/airbrush

- Multiple layers of nebula (2–4).
- Allow to dry for 10 minutes between each coat.
- Nozzle approx. 0.3–0.5 mm.

Thinning (affects conductivity & layer build-up)

Thinner: acetone.

Brush: **0–30%** acetone (starts 10–20%).

Spraying: **30–70%** acetone (build-up in very thin mist corridors).

More thinning ⇒ thinner layer per passage ⇒ **more layers** needed for low resistance.

Drying & control

Dust dry: within a few minutes. can be painted over **10–20 min** (20 °c, good ventilation).

Bath-ready usually after **2 hours** (depending on the surface).

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

- Guideline: **≈ 1000–2500 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.
- Close the can **tightly**; store in a cool/dry place (5–25 °C) out of sunlight; **flammable**.
- Thickened by evaporation? **Add acetone** and **mix thoroughly**.
- Avoid prolonged open (rapid evaporation).

WASTE & DISPOSAL

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

Save

Use closed HDPE canisters or screw-top bottles (chemical resistant), preferably un-approved.

Always label: content, date, contact.

Place bottles or jerry cans in a drip tray/tub.

Cool, dry, out of sunlight; out of reach of children/pets.

Don't save

No beverage bottles, glass jars without protection, open buckets or metal cans.

No fragile PET/PP bottles of consumer products.

Solid residues

Drain used filters, stirrers, cloths and gloves, then collect separately in a sturdy, sealable bag/bucket and dispose of as chemical waste.

Drain

Take everything to the municipal RCA collection or an approved processor. Do not mix waste streams to "dilute".

What to avoid at all costs

Do not mix with bleach or ammonia (dangerous reactions).

No compressed air in waste containers; don't build up pressure.

Technical characteristics

Property	Specification
Basis	Solvent-based acrylic (graphite-filled)
Conductivity (practical)	**Line resistance ~ 1.0–2.5 kΩ / 10 cm** (layer thickness dependent)
Color	Dark grey/black
Dry	• Dust-dry for a few minutes • Can be painted over 10–20 min (20 °C)
Dilute	**Acetone**; brush 0–30 %, spray 30–70 %
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; **flammable vapours**
Remark	Sealer + conductive layer in one; not for very large objects

Warning!

The conductive paint is toxic if used incorrectly. Avoid contact with eyes, skin and clothing. Wear eye protection (goggles, goggles, or face shield), protective rubber gloves, and aprons when preparing solutions and while working with the solutions.

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

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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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