

DIPON LuminaCast 10 Cell Flow — medium-viscosity epoxy resin for cell and wave effects

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Mixing ratio	Pot life	Thickness per pour
2 : 1 by weight	approx. 50 min	1-20 mm

1. Identification

Item	Detail
Trade name	DIPON LuminaCast 10 Cell Flow
Type	two-component epoxy casting system (part A resin + part B hardener)
Manufacturer	DIPON.DE Removable Automotive Coatings GmbH & Co. KG, Ringofenstr. 39, D-44287 Dortmund, Germany
Supplier for the Czech Republic	RESIN TABLE s.r.o., Dr. Stojana 351, 765 02 Otrokovice, Czech Republic
Pack sizes	1.5 · 3 · 7.5 · 15 · 30 kg (weight of the A + B mix) — this data sheet applies to all pack sizes

2. Description and intended use

A highly transparent epoxy resin with a **medium viscosity of 2,500 mPa·s** — the third highest in the LuminaCast range. The slow, controlled flow is the point: pigment work does not spread and the structure stays where it was created. That is what makes techniques possible which thinner systems cannot deliver. A refractive index of **> 1.59** places the material among the clearest epoxy systems on the market.

- cell effects, petri art and lace-like structures
- ocean waves and ocean art — the wave holds its shape, white foam included
- floral and pigment paintings, geodes
- designer surfaces, doming and quality sealing

Compatible substrates: wood, concrete, glass, metal, glass and carbon fibre fabrics, natural stone, silica sand, marble, granite. It can be coloured with all DIPON alcohol inks, resin pastes and effect pigments.

Properties of the formulation: UV absorbers and n-HALS light stabilisers, amines and additives with a reduced tendency to yellow, **high resistance to carbamate formation**, a crystallisation-stable recipe and bio-based ingredients. Self-deaerating components support a smooth, bubble-free surface. Free of SVHC and CoRAP substances, zero VOC content, shrinkage below 0.1 %.

3. Technical data

Parameter	Value
Mixing ratio	2 : 1 by weight (A : B), i.e. 100 : 50
Pot life	approx. 50 min (23 °C, 200 g, 10 mm)
Time to peak exotherm	approx. 100 min (23 °C, 200 g, 20 mm)
Layer thickness (20 °C)	1-20 mm (0.1-2 cm)
Viscosity, part A (23 °C)	730 ± 50 mPa·s
Viscosity, part B (23 °C)	2,500 ± 50 mPa·s
Material temperature A + B	20-24 °C

Parameter	Value
Ambient temperature	20–25 °C
Minimum batch size	120 g
Recoat / next layer	approx. 12–16 h (20 °C, 20 mm)
Demoulding	approx. 16–24 h (23 °C, 20 mm)
Sandable after	approx. 5–7 days (20 mm, 23 °C)
Hardness after 7 days (23 °C)	Shore D 82
Heat resistance	approx. 70 °C
Shrinkage	< 0.1 %
Refractive index	> 1.59
VOC content (EU)	0 %

Source: manufacturer's technical data sheet (DIPON). Pot life is measured as the time in which the mixed material reaches 40 °C (23 °C, 200 g sample).

! Never mix less than 120 g — a small batch will not cure properly

With cell effects and petri dishes it is tempting to mix just a few dozen grams. The manufacturer, however, states a **minimum batch size of 120 g**: a smaller batch does not generate enough heat of its own for the reaction to get fully under way. The result is an inhomogeneous mass and **carbamate bloom** — a whitish, milky film on the surface, formed when the amine hardener reacts with atmospheric moisture and CO₂ during the long open time. If you need only a little material, mix 120 g anyway and discard the excess.

What to watch out for with thin layers

- **Stay within 20 mm per pour.** The system is designed for thin layers — the time to peak exotherm is only about 100 minutes. A thicker layer means a steep rise in temperature, yellowing and a risk of cracking. Build up taller castings in stages, 12–16 hours apart.
- **Watch humidity and draughts.** The amine hardener reacts with atmospheric moisture and CO₂ — in a damp or cold workshop this leads to carbamate bloom and a tacky surface. Keep to the recommended ambient range of 20–25 °C and keep a fresh casting out of draughts.
- **Condition the components, not the room at the last minute.** At 2,500 mPa·s cold resin is markedly thicker and carries bubbles; let both parts reach 20–24 °C several hours in advance.

4. Physical properties of the components

Property	Part A — resin	Part B — hardener
Physical state, colour	liquid, clear	liquid, clear
Odour	characteristic	amine-like
Viscosity	730 mPa·s dyn. (20 °C)	2,500 s (DIN 53211/4, 20 °C)
pH (20 °C)	—	12.5
Boiling point	> 200 °C	> 200 °C
Flash point	> 100 °C	> 100 °C
Miscibility with water	limited	complete
VOC content	0.00 %	0.00 %

Source: manufacturer's safety data sheets, version 1 of 14 February 2024, section 9. The density of part A is 1.14 g/cm³ (20 °C).

5. Processing

- **Condition the material.** Material at 20–24 °C, room at 20–25 °C. Cold resin stays thick and carries bubbles.
- **Test the substrate.** Run a compatibility test in advance on anything you intend to embed. Seal wood with a thin coat so that it does not release air.
- **Weigh to the gram** at a ratio of 2 : 1 by weight (100 : 50). Do not measure by volume — the densities of the parts differ. An inaccurate ratio leaves a permanently under-cured, tacky surface.

- **Never mix in the shipping container** — it leads to incomplete cure of the whole batch.
- **Mix twice for 3-4 minutes.** Mix → pour into a clean container → mix again. Scrape the sides and the bottom; low speed (up to 300 rpm) does not introduce air.
- **Create your effects within 50 minutes.** The slow flow holds the pattern — cells, waves and blends stay where they were made.
- **Release the air.** The self-deaerating formulation brings most bubbles up on its own; deal with the rest using a heat gun or a flame from a safe distance, in short passes. For demanding castings the mixed resin can be degassed in a **vacuum chamber**, or strained before pouring through a **190 µm paint strainer** — this catches contaminants and breaks up large bubbles.
- **Leave it undisturbed** at a stable temperature, protected from dust and draughts. Sand only after 5-7 days — a softer surface is damaged by the heat of sanding.

Cleaning of tools: acetone or universal thinner immediately after use. Once cured, the resin can only be removed mechanically.

6. Consumption

Length × width × height of the casting in cm ÷ 1000 × 1.07 = required mass in kg. Add **10-15 %** for material left in the container and for inaccuracies of the mould. For flat pours a simpler rule applies: **1 m² at a thickness of 1 mm needs approx. 1.1 kg of mixed resin.**

7. Food contact

The formulation contains no substances from the SVHC list or the CoRAP list. According to the manufacturer's declaration, **fully chemically cured** material may come into contact with food.

i Condition: full cure

The material reaches its final properties after **7 days at 23 °C** — until then the reaction is still in progress. This assumes a correct mixing ratio, thorough mixing and a continuous, undamaged surface of the casting.

8. Safety

Both components are classified as hazardous. **Read the safety data sheets before use;** they are available for download with the product.

	Part A	Part B
Classification	Skin Irrit. 2 · Eye Irrit. 2 · Skin Sens. 1 · Aquatic Chronic 2	Skin Corr. 1 · Eye Dam. 1 · Acute Tox. 4 (oral) · Skin Sens. 1 · Aquatic Chronic 2
Pictograms	GHS07 · GHS09	GHS05 · GHS07 · GHS09
Signal word	Warning	Danger
Hazard statements	H315, H319, H317, H411	H302, H314, H317, H411
UFI	CE20-C03K-J00M-CEAT	U800-P0UN-W007-TVS6

Source: manufacturer's safety data sheets, sections 2.1 and 2.2.

Wear protective gloves and eye protection, work in a well-ventilated area, avoid breathing vapours and mists, avoid release to the environment and keep out of reach of children. **Part B causes severe skin burns and eye damage** — wear goggles or a face shield when dispensing it. **Epoxy resins are skin sensitisers:** repeated contact may cause a lasting allergy.

9. Storage and disposal

- Keep containers tightly closed, dry, away from frost and direct sunlight; store at room temperature.
- Uncured material and contaminated packaging are hazardous waste — do not pour into drains.
- Allow residues to cure; cured resin is inert and is disposed of under local regulations.

The information reflects our present state of knowledge and the manufacturer's documentation. It does not constitute a legally binding assurance of properties; processing conditions are beyond our control. Carry out your own trial before production use.