

DATA SHEET

ARTEPOXY LIQUID CRYSTAL

Clear, 100% Solids Decorative Floor Coating

DESCRIPTION

A solvent-free, clear, two-pack epoxy designed as a specialist resin in residential, retail and commercial projects requiring a high-quality decorative finish.

Quality materials are selected to create a consistent, high-performance coating that is perfectly suited to the visual demands of homes, retail outlets, showrooms and other decorative applications.

Artepoxy Liquid Crystal is formulated to defoam without heating or blowing, and the exceptional flow/levelling properties minimises the risk of craters in the cured film. When used with metallic effect pigments, stunning resin floors with high-end finishes are possible.

USES

Common uses for Artepoxy Liquid Crystal include:

- Homes
- Living Areas
- Bathrooms
- Garages
- Play Areas
- Cafes/Restaurants
- Shops
- Hair & Beauty
- Pubs & Clubs
- Offices
- Showrooms
- Walkways

PRODUCT DETAILS

Type:	Two-pack epoxy - solvent-free/100% solids.
Colour:	Clear.
Finish:	High gloss.
Mix Ratio:	3:2 v:v.
Pack Size:	12 litres.

BENEFITS

- ✓ Proven performance in decorative applications.
- ✓ Defoams without heating or blowing.
- ✓ Excellent levelling for a smooth, high-gloss finish.
- ✓ Use as crystal clear topcoat or with pigment.
- ✓ Durable - adapted from industrial technology.
- ✓ No solvents or strong odours.
- ✓ Moisture tolerant with no amine blushing.
- ✓ Can be applied direct to concrete.
- ✓ Excellent adhesion to all common substrates.
- ✓ Good tolerance of low temperatures.



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PROPERTIES

Adhesion ASTM D451/ISO 4624	Concrete substrate failure in dry and wet.
Hardness ASTM D-2280 JIS K 5600-5-4:1999	70-75 Shore D HB Scratch Pencil Hardness
Abrasion ASTM D-4060	CS-17 Test Wheel, 1kg, 1000 Cycles - 83mg
Fire Ratings ASISO 9239.1-2003	6.7kW/m ² Critical Radiant Flux 108% min Smoke Value
VOC Emission ASTM D5116	<0.05 mg/m ² /hr Total Volatile Organic Compounds (TVOC) *2mm film over 96 hours

CHEMICAL RESISTANCE

Artepoxy Liquid Crystal is resistant to exposure from spillage of most household & commercial chemicals, e.g. detergents, soaps, oils/grease etc.

Staining may occur when exposed to aggressive chemicals. Good housekeeping practices, including dilution and prompt clean up, will help minimise damage.

COVERAGE

The actual coverage achieved by Artepoxy Liquid Crystal will depend on the substrate characteristics and condition.

The theoretical yield for a 400-micron film (typical thickness) are:

12 litre kit @ 2.5m²/L = 30m²



CURING TIMES

	Time (@ 25°C)
Pot Life	- 20 minutes
Set (touch)	- 6 hours
Set (hard)	- 12 hours
Re-coat (min.)	- 12 hours
Re-coat (max.)	- 30 hours
Full Cure	- 7 days

- Approximate time frames for full kit @ 25°C.
- Pot life will shorten for larger mixes.
- Curing times will decrease with increasing temperature (+10°C will halve curing times, -10°C will double them).

PRODUCT NOTES

- Application onto concrete that isn't flat, smooth and free from projections may lead to colour, pattern and gloss inconsistencies. For best results, the substrate should not deviate more than the following distances under a straight edge tool: 3mm over 3m (flatness), 1mm over 150mm (smoothness) or 0.5mm over 50mm (projections). If required, the concrete should be levelled first with a suitable levelling compound.
- In projects aiming for a flat, high-gloss finish, Artepoxy Liquid Crystal should be applied at a minimum film thickness of 400 microns to allow the resin to flow and "self-smooth" as much as possible. Can be applied at 1mm/1000 microns or over if required.
- Artepoxy Liquid Crystal is formulated to resist crawling, however it can occur on particularly hard, glossy or contaminated surfaces.
- Artepoxy Liquid Crystal should not be used in applications requiring resistance to rapid changes in temperature during service and/or cleaning (i.e. thermal shock).
- Application onto highly porous concrete may lead to colour and gloss inconsistencies. If required, the concrete should be primed first with a suitable primer.
- Consistent with all epoxies, Artepoxy Liquid Crystal will tend to discolour upon extended UV exposure. Over-coat with Ezypoly (PU topcoat) if required.
- If splitting a kit, shake/mix Part A and Part B well separately before measuring required volume.
- If more than one kit is mixed at a time, the product can reach dangerously high temperatures and experience a significantly reduced pot life.
- Do not add solvents as it can affect performance.
- Do not use below 5°C.
- Clean up with MEK, acetone or methylated spirits.

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SURFACE PREPARATION

Concrete:

New concrete surfaces should be allowed to cure for a minimum of 28 days.

Old, damaged, cracked and/or heavily contaminated concrete surfaces should be degreased with a detergent and patch repaired prior to surface preparation.

Diamond grind or shot blast to obtain a CSP 2-3. Properly prepared surfaces should be structurally sound and free of contamination, laitance and any loose material.

Ensure surface is clean, dry and dust-free again if there's a delay between preparation and application.

Porous Surfaces:

If the concrete is found to be weak, powdery or porous during substrate preparation, apply a suitable primer/sealer first.

Coated Surfaces:

Maximum delay between coats is 30 hours @ 25°C. Should this time be exceeded the previous coat must be lightly abraded with 80-120 grit paper, vacuumed and wiped with methylated spirits or other suitable solvent.

Old, existing films can be over-coated providing they're in good condition and there are no adhesion issues. If in doubt, a tensile adhesion test should be conducted.

MIXING

WARNING: Part B is a Class 8 Corrosive. For full safety instructions, consult SDS. Wear protective clothing, goggles and gloves to prevent skin and eye contact.

NOTE:

Check packaging for correct components before mixing.

Mix product at a ratio of 3:2 by volume. Pour Part B into Part A and blend for 2 minutes.

Artepoxy Liquid Crystal kits can be split by using the following weights and volumes to make 1 litre -

To make 1 litre	Part A	Part B
Artepoxy Liquid Crystal	680g/600mL	410g/400mL

If pigmenting, pre-mix pigment pots into Part A first with a drill mixer before adding Part B.

APPLICATION

Brush, Roller, Trowel/Squeegee.

Application thickness - 400 microns (2.5m²/L).

For best results, pour product immediately onto the floor after mixing. Start 50cm from a wall and work towards the exit point pouring in an "S" shaped pattern.

Leave enough mixed product to cut in with a brush next to vertical surfaces and around tight areas. Approximately 100mm is typical.

Perform a rough spread using the squeegee to achieve a relatively even film, allow product to level for 2-3 minutes, then backroll smooth using 12mm x 270mm roller covers.

De-lint all rollers first by wrapping the roller in masking tape and removing. When backrolling, roll in long, even, overlapping strokes to get the product feeling and sounding the same.

To work a fresh batch into the seam of another, pour the material approximately 15cm from the edge and overlap with the roller by about 30cm. Try to minimise the number of seams and keep them as fresh as possible.

Each kit must be applied within the pot life times listed in the Cure Schedule table to ensure best results.

STORAGE

Keep containers closed when not in use. Store below 40°C. Do not store in direct sunlight. Shelf life is at least 12 months in original, unopened container. Seek advice from your local council regarding accepted disposal methods.

FIRST AID

CAUTION: KEEP OUT OF REACH OF CHILDREN.

IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water. **IF IN EYES:** Rinse cautiously with water for several minutes. Immediately call a POISON CENTRE (Australia - 13 11 26) or doctor/physician. If skin irritation occurs: Get medical advice/attention.



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