

# Technical Data Sheet



## ARALOX

### Epoxy Floor Coating

**Two-component, 100% solids (solvent free), cycloaliphatic, low viscosity epoxy resin designed for heavy-duty, decorative, institutional and commercial flooring. Unique chemistry minimises colour change and affords long-lasting protection.**

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#### DESCRIPTION

Aralox is a 100% solids cycloaliphatic epoxy system designed for the civil and construction industries. It is solvent-free, low viscosity and suitable for concrete, metal and timber. It may be filled with sand and other fillers to form a super-strong repair mortar, render or grout.

With the addition of suitable coloured oxides it can also be used for non-slip, highly durable flooring.

Aralox with its simple 2:1 mix ratio and relatively fast thin-film cure of 3.5 hours make it an industry favourite.

It can be applied with a brush, roller or airless spray.

#### ADVANTAGES / FEATURES

- Simple 2:1 mix ratio by volume
- Fast thin film cure of 5 hours
- Low mixed viscosity of 240 CPs penetrates concrete and is easy to roll or spray
- Good chemical resistance
- Blush-free, clear finish
- Zero VOC's - no odours or fumes during application
- Good flexibility
- Aliphatic chemistry resists colour change
- Excellent chemical and oil resistance

#### LIMITATIONS

- Expect minor colour change and surface chalking over several years when exposed to UV.
- May bubble or crater when applied to concrete that is outgassing from rising temperatures or high moisture content. To minimise this, prime the concrete first with Civilox-18 or apply a thin coat of Aralox first. Whichever product you use as the first primer coat, work it well into the surface, making sure all pores and holes are filled
- Apply the second coat between 4 hours and 4 weeks, ensuring it is clean and dust-free. If left longer than 4 weeks, mechanically remove all shiny surfaces with 80 grit sanding disc prior to overcoating
- Mixing too much at once will shorten the pot-life. On large areas, pour the mixed Product directly onto the concrete and then roll it in
- Always use Civilox-18 primer on old oily or slightly damp concrete prior to applying Aralox
- Do not apply if the substrate temperature is less than 3C above the dew point
- Avoid applying late in the afternoon in cold, damp weather.

TYPICAL LIQUID PROPERTIES		
Property	Part A	Part B
Appearance	Coloured Liquid	Amber Liquid
Viscosity @ 25°C, [CPs]	896	118
Mixed [A+B] Viscosity [CPs]	240	
Specific Gravity @ 25°C	1.17	0.97
Solids Content, [wt %]	100	85
Mixed [A+B] Solids Content [wt%]	93%	
Mix ratio - Parts by volume	2	1

TYPICAL CURED PROPERTIES		
Property	Test method	Results
Mix Ratio	By volume	2:1
Hardness	Shore D	60
Elongation at 25°C	ASTM D412 06ae2	1-2%
Abrasion resistance	ASTM c501-84, H18 wheel @ 1,000rpm with 1,000g weight	98
Solids	A and B mixed	100%
Theoretical coverage	1L (A and B mixed)	5m <sup>2</sup> 200 microns
Thin with (A and B mixed)	Xylene with maximum of	10%

PROCESSING EQUIPMENT	
Roll-on or brush application	Paint roller or brush
Spray equipment	Airless Graco Equipment

CURING SCHEDULE	
Pot life (100g @ 25°C)	45 minutes
Touch dry	3 hours
Hard	4 hours
Cure time (99%)	5 hours

## APPLICATION GUIDELINES

### PREPARATION

**Concrete** - Clean and profile concrete using industry standard techniques prior to application of Aralox. Vigorously work first thin coat (using either Civlox-18 epoxy primer or Aralox) into the concrete surface making sure to fill all pores and holes.

#### Steel

1. Remove all rust, mill scale, oil and any previously applied coatings back to bare clean steel using abrasive blast. Welds should have slag and spatter fully removed.
2. Light to medium blast cleaning is sufficient for most purposes whereby loose mill scale, loose rust and foreign matter is all removed.
3. For permanent immersion remove any soluble salts on the steel surfaces.
4. Once clean and dust-free follow 'Application Guidelines'.

#### Timber

Prepare timber surfaces to a clean, dry and sound finish. Ensure that any surface contamination is removed. Now follow 'Application Guidelines'.

#### Other Substrates

Aralox adheres strongly to most well prepared surfaces.

### MEASURING & MIXING

Mechanically stir part A (coloured epoxy resin) in its original container before use. Then mix (by volume) 2 parts of Aralox resin to 1 part of Aralox hardener (2:1).

**Do not vary from this ratio.** More hardener does not speed the cure. It stops the epoxy from curing properly.

There are many ways to measure the A & B components. Graco makes a range of specialised plural component equipment that automatically meters and mixes Aralox and Civilox. No wastage. No guessing. No mistakes. Request more information from LiquiMix.

## APPLICATION

### FOR USE AS A DECORATIVE, TRAFFICABLE FINISH OVER CONCRETE (EXAMPLE FOR A GARAGE FLOOR, SHOWROOM ETC)

Product is rolled on with a paint roller. For larger areas, LiquiMix provides a range of specialised plural component equipment from Graco that automatically meters and mixes Aralox. Graco XM or the Graco XP could both be used in this application.

For flooring applications, Aralox can be covered with flakes and a clear polyaspartic top coat.

### FOR USE AS A PRIMER

Product is rolled on with a paint roller or can be applied using spray equipment available from LiquiMix.

### FOR USE AS A RENDER

Aralox can be mixed with Renderfill to create a render to go over concrete.

### FOR PATCHING USE

When mixed with Patchfill, Aralox is ideal for patching.

## RECOAT PROCEDURES

Recoat schedule: 4 hours to 4 weeks. Surface must be clean and free of contaminant-free before recoating

Use Civilox-18 epoxy primer and sealer on porous concrete followed by one or two coats of Aralox.

If more than 4 weeks old, mechanically remove shiny surface with 80 grit disc and ensure the surface is dust-free before recoating.

## COVERAGE RATES AND DILUTION

Thinning of Aralox is not considered necessary due to its already very low mixed viscosity. However, where deep penetration is required, Xylene may be added to a maximum of 10% of mixed resin and hardener. Often the first coat of Aralox is thinned thereby allowing it to penetrate deep into the substrate. The final coat should always be undiluted.

1 Litre of Aralox will cover 5m<sup>2</sup> at 200 microns.

This will vary depending on the following:

- Porosity of the substrate
- Roughness of the substrate

1. Prepare the concrete surface to a clean, dry, sound finish.
2. Ensure that any laitance or other invisible contaminants have been removed. Be especially careful of concrete surfaces that have been in contact with formply or moulds that may contain release agents. These release agents commonly containing heavy hydrocarbons, waxes or silicones that can adversely affect the adhesion of Aralox.
3. Fill bug holes and rough areas. Remove high spots and protrusions.
4. Concrete should be roughened to a profile similar to 80 grit sandpaper. This may be achieved by using diluted hydrochloric acid (rinse off thoroughly) or mechanical abrasion.
5. Now follow 'Application Guidelines'.

## ADDITION OF COLOUR

Exposed Aralox will change colour over time and is not intended for decorative coatings, however if it needs to be coloured use the correct pigment. Contact your LiquiMix representative or distributor for full instructions.

## EQUIPMENT/PRODUCT CLEANUP

Xylene may be used for general cleanup.

## STORAGE AND HANDLING

Under normal storage conditions and in properly sealed containers, both the isocyanate and resin have a storage life of 18 months. Protect from frost. Storage temperatures above 50°C are not

recommended.

## HEALTH AND SAFETY ADVICE

Do not breathe dust / fumes / gas / mist / vapours / spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Avoid release into the environment. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash before reuse.

Specific treatment (see advice on label and Safety Data Sheet). If on skin: wash with plenty of soap and water. If in eyes: rinse cautiously with water for several minutes. Remove contact lense if present and easy to do so. Continue rinsing. Call a poison center or doctor if you feel unwell. If skin irritation or rash occurs get medical advice/attention. If eye irritation persists get medical advice/attention. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Always collect all spillage. Refer to LiquiMix Safety Data Sheets for individual products.

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## Important Notice

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