# Elite™ Refine 450

## Semi-Gloss Polyurethane

PRODUCT DATA SHEET

## FEATURES

- A durable Semi-Gloss finish without the need for flattening agents.
- Very good resistance to moisture, solvent, and heat
- Excellent durability and colour retention
- Indefinite recoat
- High flexibility and toughness
- Cost-effective, high performance coating solution for any aged vessel.
- High performance coating, that looks as good as it protects.
- Semi-gloss finish that reduces the appearance of underlying imperfections

**Limitations of Use**

- Not suitable for use below the waterline on moored vessels
- Altex Flattening Paste is not recommended to be mixed with this product.

## RECOMMENDED USES

**Elite Refine 450 Semi-Gloss Polyurethane is a specialised marine finish coat. It is based on the sophisticated combination of aliphatic urethanes and urethane reactive acrylic resins, giving a high quality and durable finish coat as well as resistance to moderate/severe marine environments.**

It has been especially designed for both the Professional and DIY painter for maintenance repainting of all yachts, launches and other pleasure craft. An easy to use, high performance polyurethane with good flow-out and wet-edge characteristics, balanced with rapid dry-to-touch – makes re-paint projects on the hardstand or on the water a practical proposition.

It is recommended for use on all vessel types to repaint:

Topsides, Cabins & Decks
Interiors, Masts & Fittings
Heads & Galleys

## SPECIFICATION DATA

| | |
|---|---|
| **Generic Type:** | Aliphatic Acrylic Polyurethane |
| **Colour:** | White and other colours on request |
| **Packaging:** | 1L & 4L kits - Two component kits |
| **Mix Ratio:** | 3 to 1 by volume |
| **Gloss:** | Semi-Gloss |
| **Flash Point:** | 45°C Setaflash |
| **Thinner:** | Altex Thinning Solvent #25 |
| **Pot Life:** | 3-4 hours at 18°C |
| **Induction Time:** | 10-15 minutes at 18°C |
| **Storage:** | Store under cool, dry conditions |
| **Shelf Life:** | Part A: 24 months at 24°C<br>Part B: 12 months at 24°C |

When kept at recommended storage conditions and in original unopened containers. For products/components exceeding the stated shelf life, contact Technical Services for further advice.

**Volume Solids (Mixed):** 50%

**Theoretical Coverage Rate:**

10 sq. metres per litre at 50 microns dry

**Recommended Film Thickness Per Coat:**

100 microns wet to obtain 50 microns dry (unthinned)

**Application:**

Spray, Brush or Roller

**Dry Times (at 18°C / 50 µm DFT / 50% RH):**

| | |
|---|---|
| Touch Dry | 90 minutes |
| Hard Dry | 24 hours |
| Self Recoat (minimum) | 12 hours |

**Application Conditions:**

| Condition | Material | Surface | Ambient | Humidity |
|---|---|---|---|---|
| Minimum | 12°C | 12°C | 12°C | 0% |
| Maximum | 32°C | 32°C | 32°C | 80% |
| Optimum | 16-24°C | 16-24°C | 16-24°C | 30-70% |

This product requires the substrate temperature to be above the dew point

## SURFACE PREPARATION

Use Elite Refine 450 Semi-Gloss Polyurethane over freshly sanded:

AY&B Epoxy Barrier Undercoat or

AY&B Polyurethane Undercoat.

The undercoated surface should be sanded with 320 – 400 grit sandpaper – We recommend 3M Free-Cut® Gold or Norton NoFil®, (or equivalent) Zinc Stearate, or Calcium Stearate sandpapers for optimised sanding and self-cleaning.

We recommend utilising a guide coat when sanding to improve the overall surface finish.

All surfaces should be clean, dry and free from all contaminants. Use Altex C50 Surface Cleaner to wipe down sanded surfaces before application of the finish coat.

## DIRECTIONS FOR USE

**Mixing:**

Elite Refine 450 Semi-Gloss Polyurethane is a two-component product contain the correct (3:1 v/v) ratio of ingredients. The entire contents of each container must be mixed together.

Thoroughly mix Part A first to obtain a smooth, homogeneous condition, (ensuring any/all settled material is incorporated) After mixing Part A, add Part B slowly with continued agitation. Allow an induction time of 10-15 minutes before application.

The pot life of the mixed material at 18°C is 3-4 hours unthinned but is increased proportionately as thinner levels are increased. Higher temperatures will reduce the working life of the coating; lower temperatures will increase it.

**Thinning:**

Thinning is not normally required, however, if required to enhance application properties, thin up to 10% with Altex Thinning Solvent #25. The level of thinning required will depend mainly on material, air, and substrate temperatures, along with humidity and wind velocity.

Thin up to 10% with Altex Thinning Solvent #25 to achieve good atomisation if spray applied.

**Application:**

Elite Refine 450 Semi-Gloss Polyurethane applies easily and exhibit good flow characteristics – without any runs at normal recommended thicknesses.

For best results, apply by spray application.

Suggested spray equipment:

Conventional Air Spray:
1.2mm to 1.6mm Fluid tip with appropriate air cap

Airless Spray:
Pump Ratio 30:1
Material Hose 3/8" I.D min
Tip Size 0.015 – 0.019

(Note: The above is a guide. Other equipment to the above may be used.)

Additional coats maybe required to achieve the desired opacity and depth of colour, depending on the colour selected.

If large areas are to be roller applied, a two-man team is recommended – one rolling, the other brushing out and tipping off.

Use a good quality, smooth surface, and solvent resistant sleeve (with a 4-6mm nap), and a professional grade brush.

**Clean-up:**

Use Altex Thinning Solvent #25

## PRECAUTIONS

For DIY & Professional Use: Read and follow all the caution statements on this Product Data Sheet, the product label, and the Safety Data Sheet (SDS) for health and safety information prior to use.

**Elite Refine 450 Semi-Gloss Polyurethane** is flammable. Keep away from heat, sparks, and open flame. Use with adequate ventilation. May cause eye and skin irritation. Do not breathe vapour or spray. Wear suitable protective clothing such as gloves and eye and face protection.

**Elite Refine 450 Semi-Gloss Polyurethane** contains isocyanate. When sprayed may be harmful by inhalation - do not breathe vapours. Wear suitable clothing, gloves, eye and face protection, including suitable breathing protection such as an air supplied respirator or hood.

Additional information is available from the Worksafe New Zealand Approved Code of Practice for the safe use of Isocyanates. We recommend that the latest information be obtained and read carefully. This information is being constantly updated and needs to be clearly understood by applicators prior to the use of this type of coating.


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