

## Anti-Scratch varnish AE 12

### Technical data sheet

Product name:	<b>AE 12</b>
Code:	<b>168712</b>

#### 1. General

The AE 12 varnish is a polysiloxane-based flexible coating protecting against the effects of scratching and abrasion. It is suitable for the coating of POLYAMIDES (e.g. Trogamid®), POLYCARBONATES and CR 39®.

AE 12 is used without primer treatment. It can be applied by a variety of techniques followed by a cure cycle at about 75 min at 120°C or 3 h à 80°C for full reticulation.

This varnish is tintable with usual dyes.

#### 2. Properties

Aspect	Colourless liquid
Content	29-31% (according to PMC Isochem specifications)
Density at 20°C	~ 0.95 (according to PMC Isochem specifications)
Viscosity at 20°C	~ 37 s. (11 mP.s - AFNOR T 30014 Cup n°2.5 – according to PMC Isochem specifications)
Shelf life*	8 months at -20 ±5 °C 4 months at +5 ±3 °C 6 weeks at +20 ±5 °C
Flash point	21°C
pH (20°C)	~ 5 (according to PMC Isochem specifications)
Solvents	Ethanol (96%), Eau (3%), Toluene (1% to denaturate ethanol)

(\*) from production date and including transportation at room temperature

#### 3. Application techniques:

- Dip,
- Flow-coating,
- Spray,
- Rotation.

#### 4. Application process

Working place:

- Properly ventilated area
- Dust free
- Relative humidity of 30 to 50%

Preparation of the area to coat:

- Wash with a detergent solution in order to get rid of dust, fats or residue of protection
- Ultrasonic cleaning is necessary

Application :

- Varnish temperature 15-20°C
- Varnish filtration 1 micron
- Dust-free drying 5 min at 70°C in infrared channel
- Curing 120 min at 100°C (Polyamide)  
75 min at 120°C (Polycarbonate)

Cleaning:

- Current cleaning : wash with ethanol
- Deep cleaning: wash with 1% aqueous caustic soda

#### 5. Concentration adjustment

- With ethanol

#### 6. Coating performance

Aspect	Clear and transparent
Refractive Index	1.5
Bayer-test	4
Colorability	Trogamid®: Excellent, Grilamid®: a primer is necessary
Adhesion	Excellent: no delamination after immersion for 30 min in boiling water

#### 7. Packaging

1L sample and 5 kg : HDPE Jerrycan – Other upon request

#### 8. Contact

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The content and data presented are provided purely for information and guidance.  
Controls and tests are necessary before use