

TECHNICAL DATA SHEET.

1. IDENTIFICATION OF PRODUCT AND COMPANY

- 1.1 Product name : **ARMAGLAZE TOPCOAT**
Heavy duty permanent architectural and anti-graffitti coating
- 1.2 Product type: **Superior quality 2-pack aliphatic polyurethane coating**
- 1.3 Company : **D. Adam & Associates / ACTEL Coatings**
Clarendon, 17 High Cross Avenue, Melrose TD6 9SQ Scotland
Tel: +44 (0) 7880 805478 E: dougadam@globalnet.co.uk
<http://www.enviroguard-anti-graffiti.co.uk/products.htm>

2. TECHNICAL DATA

- 2.1 STORAGE: Store securely between 10°C and 20°C
- 2.2 APPLICATION: Application should be by competent, trade applicators experienced in 2-pack industrial coatings. Apply **two coats** by spray, brush or roller to surfaces already sealed or painted. Bare concrete should be sealed with ARMAGLAZE SEALER or ARMAGLAZE WRE SEALER. New steelwork should be primed with a good anti-corrosion primer. On non-porous, hard smooth surfaces, it is necessary to abrade the surface first to improve adhesion. Airless spray tip sizes: 0.011 to 0.021 inches.
- 2.3 OVERCOATING: **ARMAGLAZE** should be overcoated after 8 hours and within 24 hours. After 24 hours, ARMAGLAZE needs flatted down by abrasive sanding before applying a final coat.
- 2.4 DRYING TIME: 4 to 8 hours dependent upon air temperature
- 2.5 COVERAGE: Theoretical - to 10 sq. Metres per kilo.
Practical - 6 - 10 sq. Metres per kilo.
- 2.6 DRY FILM: 28 microns per coat.
- 2.7 VOLUME SOLIDS: 65 - 80 % depending upon pigmentation
- 2.8 PACK SIZE: 2 pack product, 6 kilos of product when mixed for pigmented finishes
4.8 kilos mixed for Matt finishes
- 2.9 MIXING RATIO: 2.25 parts Resin Base Pack A : 1 Part Curing Agent Pack B colour finishes; 3 parts resin base Pack A to 1 part Hardener for Matt finishes
- 2.10 FLASH POINT: 38°C
- 2.11 FLAME SPREAD: Tested to Class 1 on porous, plasterboard. Manufactured to meet Class "O" on metal and other non-porous, non-combustible surfaces.
- 2.12 TEMPERATURE RESISTANCE: 105°C/221°F continuous, 200-250°C/392°F-482°F for short spells. Coating is thermoplastic.
- 2.13 APPEARANCE: Available in Clear and full BS 4800 colour range, full or semi gloss and matt finish. Full gloss finishes are most resistant to dirt and graffiti damage
- 2.14 TOXICITY: Non toxic pigmentation, inert in dried film

3. **PREPARATION**

- 3.1 Read the Material Safety Data Sheet before use.
- 3.2 Surfaces should be clean and free from surface dirt, dust, grease, wax and millscale.
- 3.3 All loose friable material should be removed and damaged areas made good.
- 3.4 Efflorescence, laitence and mould growth should be removed and treated as appropriate.
- 3.5 Graffiti marks remaining after preparation can be obliterated under two coats of **ARMAGLAZE TOPCOAT** Colour, and need not be totally removed.
- 3.6 Work in progress must be protected by contractors both from adverse weather and physical damage before use.

4. **APPLICATION**

- 4.1 Mix **ARMAGLAZE** Pack B Curing Agent thoroughly into **ARMAGLAZE** Pack A and let stand for 15-20 minutes before using.
- 4.2 Test compatibility on existing paint by applying **ARMAGLAZE** to a small inconspicuous area and observing that there is no wrinkling, blistering or discolouration.
- 4.3 If in doubt, strip back to bare surfaces and re-seal with **ARMAGLAZE PRIMER** or **ARMAGLAZE WRE SEALER**. (Always use **WRE SEALER** to patch seal broken painted areas before using **ARMAGLAZE TOPCOATS**).
- 4.4 Apply **ARMAGLAZE** when the air and surface temperature is above 5°C and the relative humidity between 40% and 80%. Cold conditions, rain or condensation may adversely affect the appearance of the dried film.
- 4.5 For brush and roller applications, it is important to achieve a smooth, even coating. Add 5% to 10% **ARMAGLAZE THINNERS** in small additions to improve "wet edge" time and flow properties.
- 4.6 Do not overload brushes and rollers with excessive amount of product so as to cause runs or ponding. **ARMAGLAZE** is a thin film product with a very hard, dense surface finish.
- 4.7 Use short pile, solvent resistant rollers for smooth surfaces, medium pile for irregular surface profiles..
- 4.8 After applying by roller, lay off by brush for an even finish. Do not brush out Matt finishes.
- 4.9 Brushing or rolling should not be so vigorous as to cause air entrapment.
- 4.10 For spray work, apply by airless or air assisted sprayers in evenly applied fine mist coats thinned as necessary with up to 15% **ARMAGLAZE THINNERS**. Apply the second coat at right angles to the first. Take care to cover all of the surface irregularities and indents.
- 4.11 Apply at the recommended coverage rates.

5. GRAFFITTI REMOVAL & SURFACE CLEANING

- 5.1 Because ARMAGLAZE is strongly solvent resistant, graffiti damage does not penetrate the dried film. Removal of graffiti using strong solvents with no damage to the protective coating is therefore a simple task. Surface grime can be removed by washing down with detergent and water.
- 5.2 Graffiti damage should be cleaned off using absorbent cloths or scrubbing brushes wetted with **CLEANAWAY GTi**, an environmentally safer, water miscible graffiti remover, ARMAKLEEN an aliphatic solvent based graffiti remover or any of the many commercially available solvents and graffiti removers on the market.
- 5.3 It may be necessary to repeat the graffiti removal process for stubborn markings. "Shadows" left after cleaning dye marker pens can be removed using methanol or "OUTLINE".
- 5.4 **DO NOT USE METHYLENE CHLORIDE BASED PAINT STRIPPERS.**
- 5.5 Wear eye protection and solvent resistant gloves when using graffiti removers.

6. OTHER TECHNICAL and TEST DATA

- 6.1 **FREE ISOCYANATE:** When mixed Pack A+B, ARMAGLAZE has no measurable free isocyanate at standard room temperature and pressure (STP).
- 6.2 **SALT FOG RESISTANCE: (ASTM B-117 & ASTM D-714)** 10,000 hours
- 6.3 **ACID RAIN HUMIDITY:** (Kesternich Test) 30 cycles
- 6.4 **ABRASION & EROSION RESISTANCE (ASTM D-968)** 251 per mil
- 6.5 **GLOSS RESISTANCE:** South Florida Testing Service for 48 months 51%
- 6.6 **BEND (ASTM D522):** The film started cracking at 14% elongation. After 1000 hours the film started cracking at an elongation of 3%.
- 6.7 **HARDNESS (ASTM D3363):** The paint had a hardness of H/HB. After artificial weathering the film had a scratch hardness of H/HB
- 6.8 **TABOR ABRASER (ASTM D4060):**
- | | Weight loss after
500 cycles | Weight loss after
1000 cycles |
|----------|--|---|
| Panel A: | 0.0246g | 0.0539g |
| Panel B: | 0.0242g | 0.0481g |
- 6.9 **SCRUB RESISTANCE:** No effect on paint film after 1500 cycles, other than slight marring of the finish by the nylon brush
- 6.10 **IMPACT (BS3900:E3):** There was no cracking or loss of adhesion with a 1.0 mm indentation direct impact.

6. OTHER TECHNICAL and TEST DATA Cont'd.

- 6.11 ADHESION:** (ASTM D3359) 5B
- 6.12 ARTIFICIAL WEATHERING:** (1000 hours) No chalking occurred and the panels lost only 4 gloss units from 60 degrees average of 89 to 85. The scratch hardness of the paint was not affected but the flexibility deteriorated.
(ASTM-G53)
- 6.13 SO2 RESISTANCE:** The panels were not affected after 10 cycles
- 6.14 HOT SALT SPRAY:** (ASTM B117) 1000 hours no visible effect
- 6.15 SOLVENT RESISTANCE:(BS 3900)** G5 method. The paint film was unaffected by 1/2 hours immersion in Xylene, M.I.B.K. or M.E.K.
- 6.16 INTERNAL STRESS:** The internal stress of the paint film is negligible.
- 6.17 SHELF LIFE:** 12 months minimum at recommended storage temperatures in original sealed containers.
- 6.18 EQUIPMENT CARE:** Clean all spray equipment immediately with ARMAGLAZE THINNERS. After use, brushes and rollers may not be reusable.

7. HEALTH AND SAFETY

Please ensure that operators read and understand the health and safety data sheet before using ARMAGLAZE. Particularly where application is by sprayer, follow the requirements for personal protection including use of respiratory protection.

Revised May 2005