

Two Pack Polyurethane Anti Graffiti Coating

VITRETHANE 644

PRODUCT DESCRIPTION: A & I Coatings VITRETHANE 644 is a two pack premium quality high performance polyurethane based on reactive acrylic crosslinked with aliphatic isocyanates at room temperature or under low bake conditions. V644 has been formulated with a high standard of weathering resistance and pigmented using the most durable pigments available to exhibit excellent chemical and graffiti resistance and very good exterior durability.

TYPICAL APPLICATIONS:

- In-factory painting of building cladding and fascias where anti graffiti properties are called for.
- Tunnel linings
- Graffiti resistant coatings both coloured and clear.

TECHNICAL INFORMATION

Vehicle Type	: Acrylic polyol.
Hardener	: Isocyanate.
Pigmentation	: Titanium Dioxide or other pigments.
Mixing Ratio	: 3:1 (Pack A : Pack B) by Volume.
Pot life	: 6 hours at 20°C.
Finish	: Satin.
Colour	: Unlimited colour range.
Dry time	: Dust free 30 mins @ 25°C
(minimum)	Touch dry 45 mins @ 25°C
	Dry to handle 2 hours @ 25°C
	Full cure 7 days. Hard enough to handle overnight but progressively cures over 7 days.
Recoat time	: 2 – 8 hours at 25°C.
(minimum)	
Primer Required	: Yes, dependant on substrate.
Theoretical Coverage	: 8.7m ² /Litre/50 microns theoretical.
Volume Solids	: 44%
Recommended DFT	: 50µm to 100µm dry film thickness depending on performance considerations.
Usual no. of coats	: 1 – 2 coats.
Flexibility	: Permanent flexibility - adequate for any normal substrate movement.
Abrasion Resistance	: Excellent resistance to scrubbing and sand abrasion.
Bacterial Resistance	: Excellent.
Chemical Resistance	: Excellent resistance to a wide range of organic and inorganic acids.
Graffiti Resistance	: Excellent, most graffiti damage removed simply with cleanser.
Heat Resistance	: Good.
Solvent Resistance	: Excellent resistance to solvents, petrol and oils.
Salt Spray Resistance	: Excellent.
Thinning	: Thin 5 to 10% by volume with V107 Fast Thinners or V111 Medium Thinners.
Durability	: Excellent.
Product weight	: 1.02 – 1.30Kg/Litre

MERITS:

1. Excellent weathering performance.
2. Excellent application properties.
3. Excellent chemical resistance.

LIMITATIONS:

1. For on site applications, all adjacent sensitive surfaces need to be carefully covered to avoid overspray damage.
2. Recoating must be done with great care to ensure adhesion, due to the anti graffiti properties of the coating.

APPLICATION DATA

Mixing	: Pack A to be mixed thoroughly with Pack B (Hardener).
Equipment	: Air atomisation, airless, air assisted airless, HVLP (A & I Coatings Technical staff can assist in this area). Brush and roller are only suitable for small areas.
Cleaning	: Vitrethane 107 or V111 Medium Thinners
Typical Specification	: Rural & Light Industrial Environment

Substrate	Surface Preparation	Specification	
Zincalume Cladding	Cleanse to AS1627.1	1. Vitrethane 440 ETCH 2. Vitrethane 644	To 30 microns To 70 microns TOTAL 100 microns
Colourbond Cladding	Cleanse to AS1627.1	1. Vitrethane 644	To 50 microns TOTAL 50 microns
C.F.C. Compressed Fibrous Cement	Sand/brush down	1. Vitrethane 555 2. Vitrethane 644	To 100 microns To 70 microns TOTAL 170 microns
Mild Steel	Abrasive blast clean to AS1627.4 Class 1½	1. Vitrethane 580 2. Vitrethane 644	To 100 microns To 70 microns TOTAL 170 microns
Galvanised Steel & Aluminium	Abrade by appropriate means clean to AS1627.1.	1. Vitrethane 440 2. Vitrethane 644	To 30 microns To 70 microns TOTAL 100 microns

NOTE: XRW Colour bond requires special primer.

SURFACE PREPARATION:

All surfaces to be structurally sound and free of contamination, particularly salt deposits. Loose or flaking paint must be removed by abrasive blast cleaning, power tool cleaning or sanding. Oil, grease, dirt etc must be removed with detergent and water blasting in accordance with AS 1627.1

Aluminium, galvanised steel and Zincalume

Remove oil and grease with mild detergent or with solvent to AS 1627.1. Slightly roughen the surface by sanding or light whip blasting with a non-metallic abrasive.

Steel structures

Degrease the surfaces and remove all weld spatter and flux. Grind sharp edges and corners. For best results abrasive blast clean to specified/recommended AS 1627-1 to 10 class Sa 2.5. Apply **A & I Coatings VITRETHANE 580** Primer to specification. Please consult **A & I Coatings** Technical team for particular specifications.

CFC and Cementitious Board

All surfaces to be structurally sound and free of contamination, particularly salt deposits. Loose or flaking paint must be removed by 180 grit sandpaper with orbital sanding to achieve smooth uniform surfaces, providing a sound mechanical key profile for the topcoat to adhere to. Ensure surface is dry and free of all sand, dust, oil, grease and moisture before application of primer – Vitrethane 555 or similar.

WORK STOPPAGES : Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with **A & I Coatings** recommended cleaner. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

CLEAN UP : Clean all equipment after use with **A & I Coatings** recommended cleaner. It is good work practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including and delays.

PACKING & STORAGE

Packing : Available in 4L or 20L packs. For availability of other sizes, contact **A & I Coatings**.

Storage : 12 months if stored in sealed containers away from heat and moisture. Subject to re-inspection thereafter.

HEALTH AND SAFETY : All applicable statutory regulations must be observed in the application of this product. Users must first read the Material Safety Data Sheet for Vitrethane 644. Users should familiarise themselves with all the safety aspects of the product prior to usage.

Please ensure the current Technical Data Sheet is consulted prior to specification or application of **A & I Coatings** products. If the surface intended to be painted differs from the specification, please consult the **A & I Coatings** Technical team on 1800 819 585.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Note: The figures quoted for pot life and drying/curing times are not definitive. They are dependent on site conditions, such as volume of material mixed, ambient and substrate temperatures, weather and ventilation.

DISCLAIMER

Since the use and application of this product is beyond our control we cannot be held responsible for product field performance. The information presented above is the result of our considerable experience with this product but is not to be construed as a performance warranty.

For additional information, phone our Customer Service Centre on **1800 819 585**.

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