

VITRETHANE 638

TECHNICAL DATA SHEET

Two Pack UV Stable Polyurethane Floor Coating



A & I Coatings VITRETHANE 638 is a two pack non-yellowing polyurethane finish, based on reactive polyester resin cross-linked using aliphatic isocyanate. V638 offers good application properties, fast dry and cures to a tough coating with excellent abrasion resistance.

USES & BENEFITS	• Seamless flooring • Topcoat for pre-primed concrete floor • Other substrates which need a high build non-yellowing tough coating • Clear finish for epoxy flake systems			
	Benefits	Limitations		
	1. Very tough and excellent chemical resistance	1. Solvent based coating with high VOC		
	2. Good, flow & levelling, even at high build	2. Minimum surface temperature should be at least		
	3. Non-yellowing	3 °C above dew point at time of application and		
	4. Excellent abrasion resistance.	initial cure.		
PHYSICAL PROPERTIES	Vehicle Type	Polyurethane		
	Hardener	Isocyanate		
	Mixing Ratio	3:1 (Pack A : Pack B) by Volume		
	Pot Life	1.5 hours approx. @ 20°C		
	Finish	Gloss		
	Theoretical Coverage	5.7m ² /Litre/coat at 100µm DFT		
	Volume Solids	57%		
	Recommended DFT	100µm DFT		
	Usual No. of Coats	Dependent on specific requirements		
	Primer Required	Not for concrete. Contact A&I Coatings for other substrates.		
	Colour	Clear and RAL or AS 2700S colours		
	Product Weight	1.05Kg/Litre		
ENGINEERING DATA	Abrasion Resistance	Excellent resistance to scrubbing and wet and dry sand abrasion		
	Flexibility	Excellent		
	Bacterial Resistance	Excellent		
	Chemical Resistance	Vitrethane 638 displays resistance to many common chemicals in spill or splash situations at ambient temperatures. The following chemicals are an example only. Consult A&I for specific applications.		
		• Hydrochloric Acid (10%)	• Kerosene	• Toluene
		• Nitric Acid (10%)	• Turpentine	• Organic Food Matter
		• Sulfuric acid (40%)	• Skydrol	• Grease
		• Uric acid (concentrated)	• Hydraulic Fluid	• Wine
		• Sodium hydroxide (10%)	• Brake Fluid	• Diesel
		• Hydrogen peroxide (3%)	• Motor Oil	• Hydrocarbon solvents
CURING DATA	Some chemicals may cause surface staining from prolonged exposure without impacting the coating integrity. Data is available on request. Exposure based on spill and splashes cleaned within 24hrs.			
	Graffiti Resistance	Most graffiti damage removed with suitable graffiti remover		
	Dry Heat Resistance	Very good		
	Hot Water Resistance	Up to 70°C		
	Substrate Temp.(°C)	Foot Traffic	Vehicle Traffic	Full Cure
	25 °C	24 Hrs	96 Hrs	7 Days
				Recoat Time min
				12 Hrs
Note: When overcoating V638 with itself, application to occur within 48hrs at 25 °C. No water or condensation should contact the coating for 2 days from installation				

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SURFACE PREPARATION	General	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.
	Concrete	Allow new concrete to cure for 28 days prior to coating. Surface must be sound, dry, free from all loose material, laitance, old coatings, dust and surface contaminants (e.g. oil, grease, chemicals, release/curing agents etc). Substrates must be mechanically treated by abrasive blasting or grinding to achieve a clean anchor pattern for best adhesion. Oily surfaces must be detergent cleaned and water blasted. Please note that moisture content in the concrete must be no greater than 4% pbw prior to application of the V638. Ensure no rising moisture will occur in concrete by means of an effective subgrade damp proof membrane. Concrete to be min 25Mpa compressive strength and 1.5Mpa pull off strength.
	Repaints	All surfaces should be free from oil, grease, loose paint and other contaminants. Though Vitrethane 638 may give good adhesion, a test patch is always necessary before use.
APPLICATION DATA	Mixing	Thoroughly mix Pack A & Pack B with mechanical stirrer and mix for 2 minutes being careful not entraining air in mix.
	Application	Roller, airless, air assisted airless, air atomisation.
	Ambient Temperature	Apply between 8-35 °C
	Cleaning	Use Xylene or Acetone for clean-up.
	Thinning	Use V112 Retarder up to 10%
PACKING & STORAGE	Packing	Available in 10L packs. For availability of other sizes, contact A & I Coatings .
	Storage	12 months if stored in sealed containers away from heat & moisture. Subject to re-inspection thereafter.
HEALTH & 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 638. 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 onsite 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**, or e-mail helpdesk@aicoatings.com Visit our website for more products: www.aicoatings.com



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