Datasheet

Irathane Aqualine 650

High Performance Potable Water Grade

WRAS APPROVED PRODUCT

DESCRIPTION

Irathane Aqualine 650 is a 100% solids elastomeric polyurethane developed for potable water application, which accommodates and overcomes many of the problems associated with the lining of large concrete structures successfully

Aqualine 650 *is approved by the Secretary of State for the Environment for use in contact with water which is to be supplied for drinking, washing, cooking or food production purpose under the following regulations*

- Regulation 31 paragraph 4(a) of the Water Supply Regulations 2000 (UK)
- Regulation 31 paragraph 4(a) of the Water Supply Regulations 2001 (Wales)
- Regulation 27 paragraph 4(a) of the Water Supply Regulations 2001 (Scotland)

Aqualine 650 is only available for use under the above regulations to Approved Application Companies and must be used in accordance with document "Installation procedure for the lining of concrete potable water structures – Aqualine 650 & Irabond BC50" for such applications

FEATURES

Aqualine 650 *has been developed with the following features*

- Conforms to the requirements of BS6920 and is a 'Water Regulations Advisory Scheme –Approved Product' reference 0007506
- Highly elastomeric – up to 400% elongation, Capable of accommodating crack growth from 0-10mm
- 100 solids
- Can be applied by roller, brush, squeegee or plural airless pray to accommodate all configurations and complexities
- Two colour application to facilitate defect and thickness identification
- Moisture tolerant
- Compatible with Irathane Polyurea 200 for difficult to access areas and repairs
- Backed by Irathane Quality Assurance and Approved Applicator Network

TYPICAL APPLICATIONS

- *Internal and external sealing of concrete reservoirs – gritted version allows total accessibility and avoids soil reinstatement*
- *Potable water storage tanks, including sectional tanks*
- *Potable water treatment equipment*

PRODUCT DATA

Product Data		*650*
Application		Ambient
Tensile Strength MPa	BS903 Part A2	15
Elongation at Break %	BS903 Part A2	400
Hardness Shore A	BS903 Part A57	85
Abrasion Resistance mm^3	BS903 Part A9 Method A1	180
Water Vapour Transmission	ASTM E96 – g/sq.m/24hr	20
Crack movement potential (mm)		0-10
Colours		● ●
Cured SG		0.95-1.05
Cure Time	Light Duty Use	1-2 Days
	Full Cure	5-10 Days
Mixing Ratio	By volume	6:1
Pack Size	Liters	17 Kit – 3.4 Kit

REPAIR

Should Aqualine become worn or damaged, it can easily be repaired (consult your Irathane approved applicator

SURFACE PREPARATION

See surface preparation data sheet for substrate being coated or relevant method statement, and data sheet for primer system being used. Product should only be applied when substrate is at least 1°C above dew point(concrete) & 3ºC (other Substrates) and Relative humidity is less than 85%

In enclosed areas, tanks etc., sufficient airflow must be achieved to remove an evaporating water

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MIXING

Ensure temperature of product is at least 20ºC before mixing, if necessary raise temperature gently, either by standing container (not immersing) in warm water or using indirect heat, Transfer all of the 'C' Component into the 'P' Component & mix thoroughly using a spark proof variable mixer with a spiral jiffy type mixing paddle or similar, taking care not to mix air into the product . minimum drill speed should be 800 rpm. Mix the product for 2 minutes, scrape the side of the container with a long bladed spatula to blend unmixed product and mix for an additional minute. Transfer product to a clean container and mix for a further 1 minute DO NOT BREAK DOWN KITS

APPLICATION METHOD

On Horizontal surfaces ***Aqualine 450*** can be applied by roller or poured onto the surface and smoothed out using a suitable notched trowel or squeegee, flowed by roller finishing if required. On vertical surfaces it can be applied by roller or brush

The Aqualine material can be spray applied using heated using ***plural spray equipment*** capable of maintaining a mix ratio within +/- 5% of the nominal weight mix ratio of 4.2 parts of polymer to 1 part curative. When spraying the polymer temperature must be within the range 60-80ºC and the curative 25-40ºC

- Allowance for wastage should be made (surface Irregularities)
- If the humidity rises over 85%, or temp. drops within 1ºC of dew point, when the atmospheric conditions return to recommended levels, wipe to remove excess moisture and surface contaminants before overcoating
- In certain circumstance and conditions these timings may be altered – consult Irathane Technical Service

STORAGE, SHELF LIFE & SAFETY

When stored in the original, unopened containers, at temperatures below 25ºC in dry conditions. Aqualine is guaranteed for a period of one year from the date of shipment. Irathane products may contain flammable solvents and/or materials which could be volatile and in some cases irritation to the skin and respiratory system. Use only in adequate ventilation, keep away from sources of ignition. Suitable respiratory equipment and protective clothing must be worn. Read detailed Health & Safety Data Sheet on each product before use.

APPLICATION EQUIPMENT

Product Data	*Part P*	*Part C*	*Mixed*
Coverage Rates (a) Lt/m² @ 1mm DFT			1
Colours	Clear		
Standard Kit Size (lts)		● ●	● ●
Mixing Ratio	6 (volume)	1 (Volume)	
	4.2 (weight)	1 (weight)	
Wet Film Build (vertical)			0.5mm
Material Temperature			
	15ºC - min	25ºC	35ºC
Potlife	60 Minutes	35 Minutes	20 Minutes
Substrate Temperature			
	10ºC	20ºC	30ºC
Recoat Time Minimum	90 minutes	60 minutes	30 minutes
Recoat Time Maximum without reactivation (b)	24 hours	12 hours	8 hours
Abrade & Overcoat	>24 hours	>12 hours	>8 hours
Cure: Walk on Time	4 Hours	3 hours	2 hours
Cure: Light Duty Operation	1-2 Days	1-2 Days	1-2 Days
Cure: 80% Physical properties	10 Days	5 Days	3 Days
Cure 100% Physical Properties	15 Days	7 Days	5 Days

21 Days at 7ºC to comply with the secretary of State for the Environment Reg.25(1)(a) Approval

DISCLAIMER

The above figure represent mean values obtained in our own laboratory. They do not as such constitute a specification, since ITW Irathane International cannot predict the results which may be obtained from different working conditions on users equipment, it is in the best interest of all customers that they ascertain by relevant tests the suitability of a given system for any application