

BIOFI-DNT

High Performance Ecological Coating



Royal Paints

TEST DATA OF THERMOSTONE

ITEM	RESULT	CRITERION	TEST EQUIVALENCY AS PER JIS
Condition in Container	PASSED	Paints shall have no lumps when mixed	K 5663 5.3
Film Workability	PASSED	No application difficulties when applied twice	K 5663 5.4
Stability at -5°C	PASSED	No change	K 5663 5.5
Drying time	PASSED	Within 2 hours	K 5663 5.6
Appearance of film	PASSED	No sags and runs when applied	K 5663 5.7
Hiding power	0.99	Over 0.90	K 5663 5.8
Water resistance	PASSED	No abnormalities when immersed in water for 96 hours	K 5663 5.9
Alkali resistance	PASSED	No abnormalities when immersed in saturated calcium hydroxide for 48 hours	K 5663 5.10
Wet Scrub resistance	PASSED	Must pass 500 cycles (Passed SS 345 : 1990 requirement for 3000 cycles)	K 5663 5.11
Accelerated Weathering	PASSED	Sunshine Weather-O-Meter for 200 hours (Passed SS 345 : 1990 requirement for 1000 hours)	K 5663 5.12



USAGE: FOR OUTDOOR AND INDOOR

SUITABLE FOR PROJECT LIKE:

Hotels, schools, restaurants, hospitals, commercial buildings, residential apartments, food factories, etc.

APPLICATION SUBSTRATE

Concrete, cement mortar, suitably primed building boards, etc.

PACKING STYLE

Undercoat Sealer :20 kg
Biofi Matt :20 kg
Biofi Satin :20 kg



THERMOSTONE FZE
'The Green Building technological company'

BIOFI, a reactive type aqua-based Paint

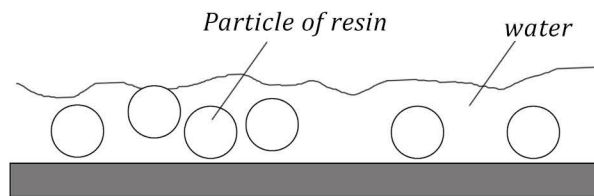
Considering the damage to human health & the environment, we at Thermostone have developed an environmentally friendly high performance aqua- based Anti fungus Paint.

We also take pride in supporting the green movement by continuing to develop more new environmentally friendly paints.

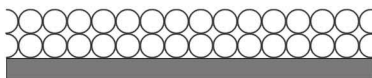
Cross-Linking Mechanism

Biofi has a unique curing system entirely different from the conventional aqua-based Paint

Stage 1: Before water evaporation



Stage 2: After water evaporation



Biofi cures by the chemical cross-linking of binder hence resulting in durable and dense paint film

Unlike conventional solvent-based paints or emulsion paints, it does not emit any obnoxious or toxic odour

Advantages

Superior film Performance

Its chemical cross-linking film formation structure provides excellent resistance to water, alkali and other forms of contamination. Biofi is thus suitable for a wide range of application conditions.

Washability

Its tough film allows scrubbing without causing damage of the film. Therefore Biofi can withstand more washing cycles than conventional Aqua based paint

Fungus Resistant

Biofi is designed to resist contaminants such as dirt, dust, spores, moulds and fungus.

Odourless

Solvent based paints form tougher paint films than conventional Aqua based Paints. While, the former gives off a strong unpleasant toxic odour, Biofi forms the desired tough film without emitting any unpleasant toxic smell

APPLICATION SPECIFICATION

Process	Material	Mixing ratio (By weight)	Consumption (Kg/m ²)	Number of coats	interval (hrs)			Remarks
					Within Process	Between process	Final curing	
Substrate Preparaion	Allow the Substrate to dry for moisture content of 10% or less, ensuring ph value of 10 or below Remove all foreign matters, make good cracks and surface imperfections.							
Primer	Undercoat Sealer	100%	0.10-0.20	1	-	Min. 1	-	By Roller, brush,or airless spray gun
	Water	0-20%						
Finish	Biofi	100%	0.25-0.30	2	Min. 2	-	Min. 24	
	Water	0-20%						

Comparison test data

Note : Higher figure shows higher resistance

ITEM	RESULT			TEST EQUIVALENCY
	BIOFI	ACRYLIC EMULSION	SOLVENT PAINT	
Contamination Resistance	5	1	5	Under 20°C, 65%RH, the specimen is applied and kept for 8 hours. Then, the adhesiveness of the blasted block sand is evaluated.
Washability	20,000 times	20,000 times	20,000 times	JIS A6909 5.11. The specimen is rubbed by a pressure of 450g.
Vapour Resistance	5	5	5	Under 100% relative humidity, leave the specimen for 24 hours.
Water Resistance	5	5	5	JIS K 5400 7.2, immersed in water for 96 hours.
Hot water Resistance	5	5	5	Immersed in 50°C water for 48 hours.
Alkli Resistance	5	5	5	JIS K 5400 7.4, immersed in saturated calcium hydroxide for 48 hours
Fungus Resistance	4	4	4	JIS Z 2911. Under 28°C, leave fungus on specimen for 2 weeks.
Weather Resistance	Contamination	5	5	Explore the specimen for 12months.
	Surface Condition	5	crack	

TEST RESULT INTERPRETATION

Washability

Conventional Aqua Based Paint fail in the 1000 times washability test.

BIOFI provides a strong film surface surface which has a resistance to 20,000 times in the wasability test.



BIOFI



CONVENTIONAL ACRYLIC EMULSION PAINT

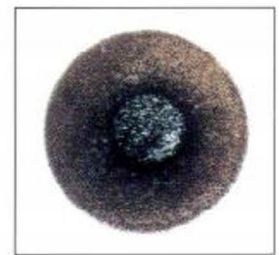
Fungus Resistance

This is the result of the Cultivation Test after 14 days.

Conventional Aqua Based Paint show a propogation of fungi.



BIOFI



CONVENTIONAL ACRYLIC EMULSION PAINT

Durability & Anti-contamination :

After outdoor exposure for 6months, BIOFI did not show any crack or remarkable contamination due to its non-tacky nature.



BIOFI



CONVENTIONAL ACRYLIC EMULSION PAINT