



FLOSIL BET[®]

An Indo – Malaysian JV



Protecting your Assets from Devaluation

Eco Practical Coating Solutions

Flosil-BET Coatings (India) Private Limited
An Indo – Malaysian JV

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Corrosion Protection is an area that is of utmost concern especially with regards to assets continuity and preservation. In line with our expertise and experience, we have developed and patented products that meet such critical demands and conditions.

Flosil-BET is an Indo - Malaysian Joint Venture focused on technology-based products for the complete Indian & Global Industries.

Flosil-BET has been a leading manufacturer of high-performance industrial coatings, and that tradition continues with innovative coating formulations that protect a wide range of substrates and enhance aesthetics.

In line with our expertise and experience, we have developed and patented products that meets such critical demands and conditions.

From water tanks and treatment plants, to manufacturing plants, industrial facilities, refineries and specialty Oil & Gas Platforms, Flosil-BET coatings can be found protecting virtually all types of structures.

Flosil-BET's extensive product line is backed by outstanding technical support through the company's network of knowledgeable coating consultants.

Corrosion Protection is an area that is of utmost concern especially with regards to assets continuity and preservation. Our Product is applied in more diverse geographical areas and climates than anyone in the industry.

Products

- | | | |
|----------------|----------------------------|-----------------------------|
| 1. Aqua Sealer | 5. Aqua Filler | 9. Flange Protection System |
| 2. Aqua ST | 6. Universal Degreaser L-7 | 10. SKIDFREE® Anti-Skid |
| 3. Aqua ST-03 | 7. Quick Seal | 11. KON-TAC® |
| 4. Aqua PU | 8. Rust Contact V | |

Approvals

- IIT Bombay
- SIRIM QAS
- Reliance KG D6
- SHELL
- Petronas

Product Characteristics

A low viscosity, non-solvent type 100% volume solid epoxy coating with excellent adhesion to steel, concrete, metal to metal and non-ferrous metals such as aluminum, stainless steel, titanium, FRP and even glass.

It can be applied in harsh and adverse conditions for e.g., tidal zone areas, underwater applications and also to oily surfaces which gives simplicity of application to the applicator with minimum surface preparation. Versatile in which it can be applied onto wet or dry surfaces and displays excellent adhesion and compatibility to other coatings. Contains Zirconium and is suitable for rebuilding pitted surfaces up to 5mm.

Solvent free system that is ideal for use for interior of drinking water tanks.

The coating is suitable for use on the floor and interior for the food processing and manufacturing industry, Oil & Gas and power industry.

Physical Properties

No.	Type of Tests	Test Method	Results
1	Resistance to Organic Coatings to the effect of Rapid Deformation	ASTM D2794	(Kilogram-meter) at the impact failure end point - 911g (2Lbs) - More than 65 cm.
2	Abrasion Resistance of Organic Coatings by the Taber Abraser	ASTM D4060	Wear Index = 20 (20mg/1000cycles/1kg)
3	Pull-Off Strength of Coatings using Portable Adhesion Testers	ASTM D4541	More than 6.0N/mm ² (870psi)
	Cyclic Salt Fog / UV Exposure of Painted Metal (Alternating Exposure in a Fog/Dry Cabinet and a UV/Condensation Cabinet)	ASTM D5894	Rust Grade 9G* (% of Surface Rusted- Greater than 0.01% and up to 0.03%)

Colour	Black, Green, Grey ,Yellow, White and all RAL,BS colours
Finish	Glossy
Packing Size	20 Lit & 5 Lit pack
Non-volatile Content	100%
Mixing Ratio	Epoxy and Hardener (5:1) by weight only
Full Cure	30°C in 48 hours
Pot Life	30 to 40 minutes at 30°C
Touch Dry	3 hours with walkover of 4 to 8 hours at 30°C
Temperature Resistance	5°C ~ 150°C (During Application)
Temperature Resistance	-20°C ~ 150°C (After Full Cure)
Chemical Resistance	Upto 75% H ₂ SO ₄
Volume Solid	100%
Recommended DFT	100 - 200 µm
Coating Layer	1-2
Theoretical Coverage	10m ² /liter (at DFT 100µm) *Allow for application losses and surface irregularities
Shelf Life	At least 24 months when stored in sealed containers

Recommendation of use

To apply on to any surface that does not exceed 150°C except for rubber and thermoplastic. Can be used as a single coat system or in multiple applications from 150 to 1000 micron. For use as a Primer from 50 to 70 micron (allow to cure for 24 hours before any solvent based coating is applied over).

It also has excellent performance to concrete floor with unique property of surface tolerance making it ideal for industrial floor coatings.

- Tanks, Exterior of Steel and Iron Pipes
- Coating onto GRE / Fiber Glass
- Offshore structures, marine vessels, FPSO
- Vessel linings under immersed conditions up to 150°C
- Concrete Structures
- Splash Zones, Tidal Zones, Flow Lines, Risers, Jetty's
- Water Storage Tanks
- Fishing Boats, Ships & Barges
- Water Proofing
- Gratings with minimum surface preparation
- Bridges, Walkways, Bridge bearings, Railings
- Decks, piping, storage tanks, ballast tanks
- Acid Linings subject to type of acids
- Concrete Repairs
- Pressure Vessels, Storage Tanks, Turbine Ducts / Exhaust
- Wooden Blocks, Glass, Stainless Steel Products
- Industrial Floor Coatings
- Roads (Zebra Crossing, Divider's etc...)

Environmental Conditions

Blasting or application should NOT be carried out when:

- Relative humidity is >95%
- Substrate temperature below 4°C.

Application Data

Method of application	Airless spray, Air Spray (Pressure Pot), Roller or by Brush
	Airless spray : spray tip size - 0.019 - 0.025 inch
Cleaner & Thinner	Use Xylene 3 to 5% max as cleaner. For Drinking water tank inside coating don't use any thinner for mixing.
Over-coating interval	Can be over-coated when touch dry. (After 4 to 6hrs)
Mixing	Mix components thoroughly and allow to stand for 2 to 3 mins before painting



GRE Rectification



Before



After



Before



After

Barge Coating



Before



After

Hot Line Valve & Flange



Before



After

FRP Tank



Before



After

Jacket Legs

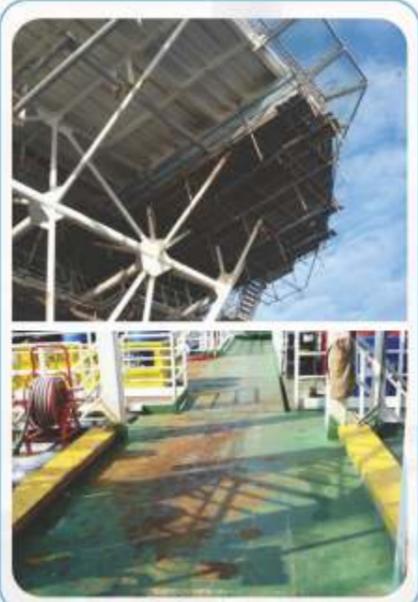


Before



After

Maintenance Painting



Before

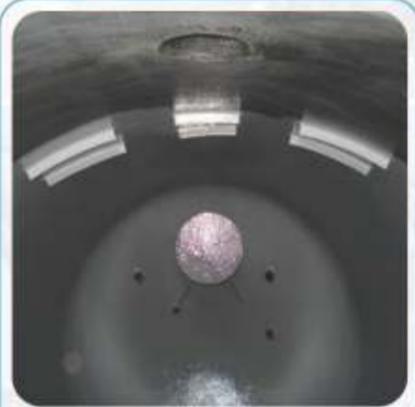


After

Vessel Internal Coating



Before



Before

Hot Pipe Lines



Before



Before

Under Water - Jetty Piles



Before



After



Before



After



Before



After

Product Description

A two-component modified epoxy polyamide, high volume solid, high build, surface tolerant coating meeting requirements of SSPC Paint 22, designed to work in low to highly corrosive industrial and marine environments (C5). Exhibits excellent adhesion to moderately prepared surface, excellent water and chemical resistance. Can be applied as self-sufficient coating system. Used as primer in a multi-coat coating systems.

Product Information

Colour	Grey, White, Red, RAL , BS all colors
Packing	20 Liter & 10 Liter pack
Mixing Ratio	1.2 : 1 (Part A + Part B) by weight only
Volume Solids	95% ± 3%
Working Pot Life	90 minutes at 35°C
Maximum Solvent	5 - 8 %
Coating Layer	1-2
Touch Dry	4 – 6 hrs. at 30°C
Temperature Resistance	55°C (After full cure)
Chemical Resistance	Upto 75% H ₂ SO ₄
Recommended DFT	250 - 300µm
Coating Layer	1 – 2 on deck
Over Coating	4 hours
Full Cure	Can be over coated whenever touch dry
Theoretical Coverage	3.8 Square meter based on 250µm *Allow for application losses & surface irregularities
Shelf Life	At least 12 month when stored in sealed containers

- Aqua ST is a versatile paint with many potential applications.
- Industrial Floor Coatings, Offshore, beams, decks and other structures from civil and day to day use.
- It can be used on new as well as old metals & ideal for ships, piles, pre-fabricated metal structures.
- It can be applied over existing coatings.
- High corrosive environments such as chemical plants etc....
- Naturally occurring acidic areas such as jetties and sluice gates, paper mills, palm oil mills etc....

Application Data

Method of application	Airless spray, Air spray (pressure pot), Roller, Brush ,Conventional Spray
	Airless spray : Tip size - 0.017 inch or larger
	For Conventional spray moisture and oil trap in the air supply line, mechanical agitator is recommended for mixing the paint.
Thinning ratio	Use Xylene 5 - 15% when required.

Application Area

- Tanks, Exterior of Steel and Iron Pipes
- Coating onto GRE / Fiber Glass
- Offshore structures, marine vessels, FPSO
- Vessel linings under immersed conditions up to 55°C
- Concrete Structures
- Flow Lines, Risers, Jetty's
- Water Storage Tanks
- Fishing Boats, Ships & Barges
- Gratings with minimum surface preparation
- Bridges, Walkways, Bridge bearings, Railings
- Decks, piping, storage tanks, ballast tanks
- Acid Linings subject to type of acids
- Concrete Repairs
- Pressure Vessels, Storage Tanks, Turbine Ducts / Exhaust
- Wooden Blocks, Glass, Stainless Steel Products
- Water Proofing
- Industrial Floor Coatings
- Roads (Zebra Crossing, Divider's etc...)

Environmental

Blasting or application should NOT be carried out when:

- Relative humidity is >95%
- Substrate temperature is below 4°C.

Resistance Table

	Acid*	Alkali	Solvent	Sea Water	Fresh Water
Spillage	C	A	B	A	A
Fume	B	A	A	A	A
Immersion	NR	NR	X	A	A

NR: Not Recommended, X: Poor C: Fair, B: Good, A: Very Good
 *Exceptional Performance towards acids like H_2SO_4 , HNO_3 , etc...

Barge Coating



Vessel Coating



Exhaust Fan



Before



After

Civil Work



Before



After

Painting and Testing over glass

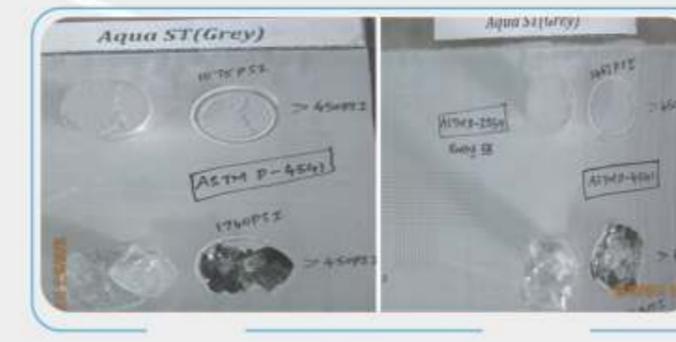
- Ensure the surface free from Dust, Loose particles and Oily matter.
- If any foreign oily matter is found clean it with thinner.

Test carried over glass



Before

After

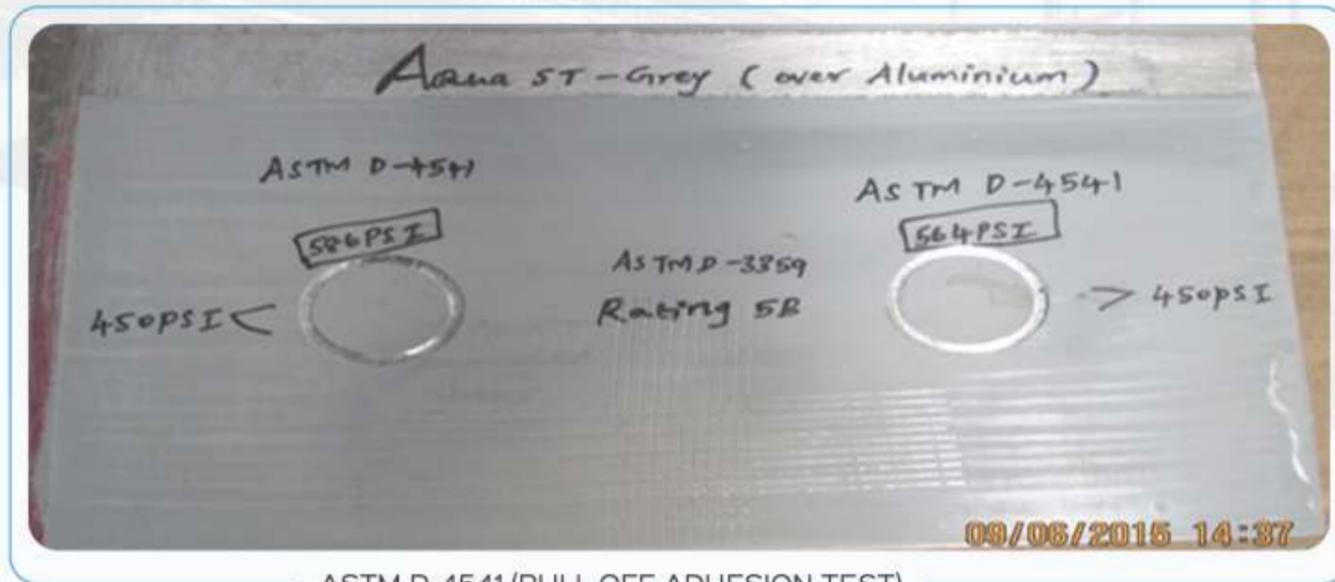


ASTM D-4541

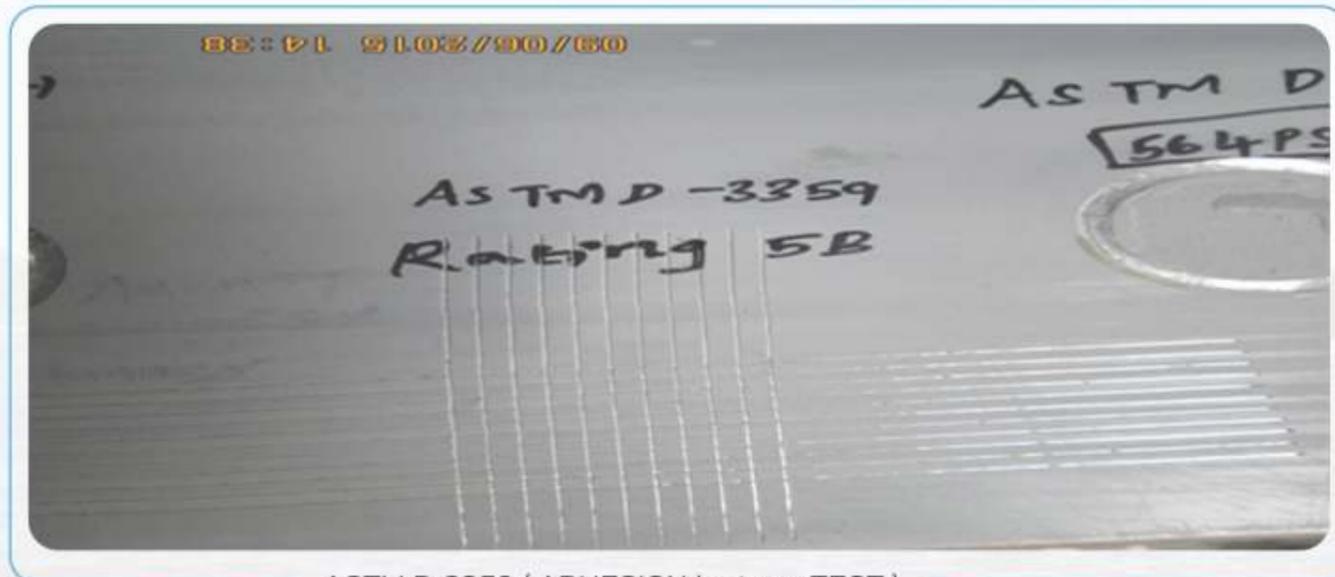
ASTM D-3359

- a) Surface preparation with sand paper grid size 80 or by hand tool like wire brush and ensure it's free from dust and loose particles.
- b) No thinner recommended for Aqua ST painting over aluminium use.

Test for aluminium



ASTM D-4541 (PULL OFF ADHESION TEST)



ASTM D-3359 (ADHESION by tape TEST)

Product Description

Aqua ST-03 is designed as a two part paint system. It is a low volatile organic content paint with a high solid content. It is a modified epoxy coat that gives long term protection with high resistance properties and is ideal for use in harsh marine and industrial environments where there is no compromise on quality.

Product Information

Colour	All RAL, BS Colours
Packing	20 Liter & 10 Liter pack
Mixing Ratio	1.2 : 1 Part A & B by weight only
Volume Solids	95 ± 3%
Working Pot Life	40 - 60 minutes at 35°C
Maximum Solvent	5 - 8 %
Coating Layer	1-2
Touch Dry	3 - 4 Hours
Temperature Resistance	110°C (After full cure)
Chemical Resistance	Upto 75% H ₂ SO ₄
Coating Layer	1 - 2 on deck
Theoretical Coverage	6.5 Square meter per Liter based on 150µm DFT
Recommended DFT	150µm - 300µm
Full Cure	Can be over coated when ever touch dry
Over Coating	4 hours
Shelf Life	At least 12 months when stored in sealed containers

Brush Application	100 ~ 150 µm
Over Coating Interval	Can be over-coated when touch dry
Method of application	Airless spray, Air spray (pressure pot) Roller Brush Airless Spray
	Airless spray : Tip size - 0.017 inch or larger For Conventional spray, moisture and oil trap in the air supply line and mechanical agitator is recommended for mixing the paint
Thinning ratio	Max 3% Xylene when required
Note	Epoxy paint especially the colour White, under direct sunlight tends to have discolouration. Advise to apply PU to prevent the discolouration



Power Station – Coating on Distillate Fuel Oil Pipeline



Resistance Table

	Acid*	Alkali	Solvent	Sea Water	Fresh Water
Spillage	C	A	B	A	A
Fume	B	A	A	A	A
Immersion	NR	NR	X	A	A

NR: Not Recommended, X: Poor C: Fair, B: Good, A: Very Good
 *Exceptional Performance towards acids like H₂SO₄, HNO₃, etc...

Vessel Coating



Power Station – Multiple Pipes



Power Station – Coating on Tank Top



CW Pipe



Motor Coating



Guard Rail Coating



Product Description

Aqua PU is a two pack acrylic polyurethane finish which is applied over a primer that gives long terms recoat ability, excellent durability and UV resistance with superior cosmetic (Glossy) finish.

Product information

Colour	Available in all RAL, BS colours
Packing	5 Liter pack
Mixing Ratio	5 : 1 Part A & B by volume
Volume Solids	53% ± 3% (ASTM 2697-86)
Working Pot Life	3 - 4 hours 30°C (at higher temperatures pot-life decreases)
Coating Layer	1-2
Touch Dry	30 - 60 min at 30°C
Hard Dry	24hrs
Recommended DFT	50µm - 75µm (90µm - 136µm on wet condition)
Coating Layer	1 – 2 on deck
Theoretical Coverage	11 m²/liter at 50 microns DFT, * Allow appropriate loss factors
Full Cure	Can be over coated when ever touch dry
Over Coating	1- 2hrs at 30°C (After touch dry)
Shelf Life	At least 8 month when stored in sealed containers

Product Characteristics

Aqua PU suitable for use in both new construction and as a maintenance finish which can be used in a wide variety of environments including offshore structures, chemical and petrochemical plants, bridges, pulp and paper mills, and in the power industry.

Coating Thickness	50µm ~ 75µm(DFT)
Primer Required	Aqua Sealer, Aqua ST or Aqua ST-03 around 200µm ~ 300µm
Over Coating Interval	Can be over-coated when touch dry
Method of application	Airless Spray, Brush, Conventional Spray, Roller
	Airless spray : Tip size - 0.017 inch to 0.019 inch
	For Conventional spray a moisture and oil trap in the air supply line,mechanical agitator are recommended
Thinning ratio	3 - 10% (Xylene) when required
Cleaner	Xylene / Toluene / Ethyl acetate

Application Area

- Tanks, Exterior of Steel and Iron Pipes
- Coating onto GRE / Fiber Glass
- Offshore Super structures, marine vessels, FPSO
- Concrete Structures
- Flow Lines, Risers, Jetty's Super structures
- Exterior of Water Storage Tanks
- Fishing Boats, Ships & Barges
- Bridges, Walkways, etc...
- Decks, piping, storage tanks exterior
- Exterior of Pressure Vessels, Storage Tanks exterior
- Wooden Blocks, Glass, Stainless Steel Products
- Industrial Floor Coatings
- Chemical & Petrochemical Plants
- Power Industry
- Paper & Pulp Mills

Environmental

Blasting or application should NOT be carried out when:

- Relative humidity is >85%
- Substrate temperature is below 4°C.

Application – TNB (Port Dickson)



Before

After



Before

After



Surface Preparation

Stripe coat application-PU



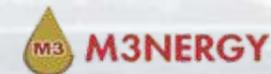
Surface Preparation

During primer application

Application – Pool area



Our Valued Customers



Key factors contributing to Flosil - BET's success

- Advanced high-capacity robotic manufacturing processes.
- Highly experienced engineers and operators.
- Highly trained Quality Personnel.
- Professional after-sales service.
- Superior and unrivalled coating technology.