TAM

Anti Corrosion Industry

TAM 3 LCW SYSTEM

TAM 3 LAYERS COMPOSITE WRAP

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MADE IN
INDONESIA

TAM
Anti Corrosion Industry

TAM 3 LAYERS COMPOSITE WRAP SYSTEM

DESCRIPTION

TAM 3 LAYERS COMPOSITE WRAP SYSTEM IS OUR NEW TECHNOLOGY TO SOLVE CONVENTIONAL PROTECTIVE COATING AND PETROLATUM TAPE WITH HDPE JACKET SYSTEMS.

TAM 3 LAYERS SYSTEM IS DESIGN TO STOP CORROSION AND STRENGTHEN THE PILES AT HAZARD CONDITION SUCH AS SPLASH ZONE AREA BY CREATING A SOLID BARRIER BETWEEN STRUCTURE AND ELECTROLYE (SEA WATER OR SOIL).

THE SYSTEM HAVE LONG LIFE DESIGN AND EASY FOR INSTALLATION AND MAINTENANCE.

TAM 3 LAYERS COMPOSITE WRAP SYSTEM IS MADE BY PT. TAM VICTORY CEMERLANG, AN INDONESIAN COMPANY SPECIALIZES IN ANTI-CORROSION SINCE 2008. TAM 3 LAYERS COMPOSITE WRAP SYSTEM HAS A TKDN OF 37.92% (MINISTRY OF INDUSTRY).

TAM 3 LAYERS COMPOSITE WRAP HAVE MANY ADVANTAGES:

1. EASY FOR INSTALLATION
2. RESISTANT TO BIG WAVES
3. RESIST DIRECT FLOW
4. RESIST HIGH CORROSION RATE
5. CAN NOT BE STOLEN
6. LONG LIFE TIME DESIGN

THIS SYSTEM WAS DESIGNED SPECIFICALLY ON OFFSHORE STRUCTURE WITH THE DETAIL AS FOLLOWS:

1. TAM 3 LCW FOR ABOVE WATER
2. TAM 3 LCW FOR UNDER WATER

SYSTEM

TAM 3 LAYERS COMPOSITE WRAP SYSTEM
Offers excellent protection against corrosion and creates a solid water barrier

It has good resistance to acids, alkalis and salt.

Characteristics:

1. Long term anti corrosion protection and applicable to various places in ground, marine, underground and any kinds of pipes.
2. Great efficiency with easy application and short working times.
3. Hygienically harmless and non-polluting.
4. A very high degree of impermeability to water. No cracking and hardening.
5. Good resistance to acids, alkalis and salts.
6. Merges with the structure, therefore nothing to steal.
7. Resistant to big waves.

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TAM 3 LAYERS COMPOSITE WRAP SYSTEM

COMPONENT

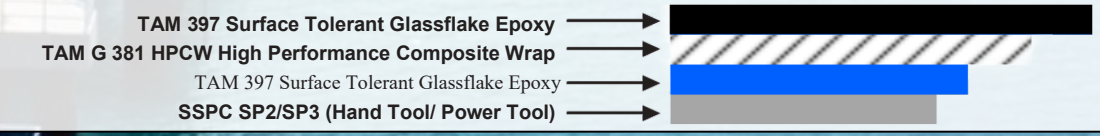
TAM 3 LAYERS COMPOSITE WRAP SYSTEM COMPONENT FOR ABOVE WATER

NO	ITEM
1.	TAM 098 Rust Converter
2.	TAM G 381 HPCW High Performance Composite Wrap
3.	TAM 397 Surface Tolerant Glassflake Epoxy

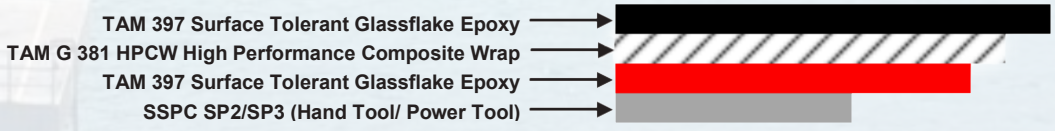
TAM 3 LAYERS COMPOSITE WRAP SYSTEM COMPONENT FOR UNDER WATER

NO	ITEM
1.	TAM 397 Surface Tolerant Glassflake Epoxy
2.	TAM G 381 HPCW High Performance Composite Wrap
3.	TAM 397 Surface Tolerant Glassflake Epoxy

ABOVE WATER



UNDER WATER



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TAM 3 LAYERS COMPOSITE WRAP SYSTEM

COMPONENT

STANDARDS
STANDARD ASME PCC-2-2018, Table 401-3.2-1 REPAIR SYSTEM REQUIRED MATERIAL AND PERFORMANCE PROPERTIES FOR COMPOSITE WRAPPING DB 1000

No	Item	Requirement	Method	TAM Result	Laboratory
1	Tensile Strength	Strain to failure must be >1%	ASTM D3039	531.5 ± 4.09 MPa	STP Lab No. 1603770822
	Tensile Modulus		ASTM D3039	22.71 ± 4.38 GPa	STP Lab No. 1603770822
	Elongation at Break		ASTM D3039	3.85 ± 0.71 %	STP Lab No. 1603770822
2	Per Ply Thickness	None	ASTM D5947	1300 microns	STP Lab No. 1603770822
3	Adhesion	4 MPa	ASTM D4541	7 MPa	TAM Inhouse Lab
4	Flexural Modulus	None	ASTM D790-17	20.93 ± 0.37 GPa	STP Lab No. 1603770822
5	Flexural Strength	None	ASTM D790-17	520.07 ± 13.65 MPa	STP Lab No. 1603770822

ADDITIONAL PROPERTIES FOR TAM COMPOSITE WRAPPING DB 1000

Item		Method	TAM Result	Laboratory
Dielectric Strength		ASTM D149	<5000 V Ac; No breakdown	Sucofindo Lab No. 42467/DBBPAN
Volume Resistivity		ASTM D257	>500 G ohm (500 V Dc)	Sucofindo Lab No. 42467/DBBPAN
Heat Distortion		ASTM D648	96.12 °C	Sucofindo Lab No. 42467/DBBPAN
Hardness Shore D		ASTM D2240	79.2 D	STP Lab No. 1603770822
Compression Test	Strength	ASTM D695	124.46 ± 15 MPa	STP Lab No. 1603770822
	Modulus		6.25 ± 1.38 GPa	STP Lab No. 1603770822

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TAM 3 LAYERS COMPOSITE WRAP SYSTEM

METHOD

APPLICATION METHOD TAM 3 LAYERS COMPOSITE WRAP SYSTEM

ABOVE WATER

1. Remove moisture, oil, dust scale, & etc. on the surface area by hand tools/power tools (SSPC-SP2/SP3).
2. Apply TAM 098 Rust Converter at the Splash Zone area evenly using paint roller. This paste functions as anti-corrosive, surface wetting and creates an excellent adhesive.
3. TAM G381 HPCW High Performance Composite Wrap around surface pipes while applying tension to assure tight wrap adhesion.
4. Use iron paint roller to remove trapped air.
5. Let it stand at least 8 hours, then Finishing carried out with the application of TAM 397 Surface Tolerant Glassflake Epoxy

UNDER WATER

1. Remove moisture oil, dust scale & etc. on the surface area by hand tools/power tools (SSPC-SP2/SP3).
2. Apply 397 Surface Tolerant Glassflake Epoxy as a primer layer, with manual hand glove.
3. TAM G381 HPCW High Performance Composite Wrap around surface pipes while applying tension to assure tight wrap adhesion.
4. Use iron paint roller to remove air.
5. Apply TAM 397 Surface Tolerant Glassflake Epoxy once more which acts as the outer layer.

APPLICATION


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TAM 397
SURFACE TOLERANT
GLASS FLAKE EPOXY

General Description	Two component high build surface tolerant epoxy containing a high level of chemically resistant glass flake which impart properties of excellent corrosion, abrasion and chemical resistance. Will continue cure when immerse in water, also suitable for Oily substrate. Self Primer
Typical Uses	For the protection of steel work in areas where high abrasion and corrosion resistance are required including splash zone areas on off shore platforms, jetties, decks, bridges chemical plant, pulp and paper mills, water treatment plants and underground pipelines. TAM 397 gives good compatibility with both sacrificial anode and impressed current system, making suitable for the long term protection of Sub-Sea Structure.

Specification data	
Color	Black
Volume solids	92 %
Typical thickness	200 - 400 microns DFT
Theoretical coverage	2.30 - 4.60 sq.m/liter at 200 - 400 microns DFT
Practical coverage	Allow appropriate loss factor
Mixing ratio	5 : 2 part by volume base to activator
Thinner	Not recommended
Cleaner	TAM 120
Pot life	1 hours (25^0C)
Pack size	3.5 liter
Product weight	1.36 kg / liter
Flash point	31^0C
Storage	Stores in cool, dry conditions
Shelf life	12 months from shipment when stored indoor

Method of Application	
Airless spray	Recommended Total output fluid pressure at spray tip not less thn 211 kg/cm² (3000 psi)
Brush or Roller	Suitable

Green Solutions

TAM 397
SURFACE TOLERANT
GLASS FLAKE EPOXY

Drying time				
Substrate temperature	Touch dry	Hard dry	Over coatings Interval with Recommended TOP Coat	
			Minimum	Maximum
30^0 C	2 hours	12 hours	8 hours	4 days

Surface Preparation

Minimal Surface preparation
Remove dirt, grease and any contamination according to SSPC-SP 1, removes weld spatter and smooth weld seams or sharp edges.

Application as Primers

TAM 397 SURFACE TOLERANT GLASS FLAKE EPOXY should be applied surface preparation for primer minimum NACE2/SSPC-SP10/ISO8501-1, SA 2.5

Limitation

In common, all epoxy coatings may chalk or discolour on exterior exposure
Rate of chalking will depend upon climate conditions.
No adverse effect upon anti corrosive properties and will be limited to a thin surface layer

Mixing

Stir the contents of the containers until mixed to a uniform consistency. Mix a complete unit in the portion supplied must be use within the working pot life specified.

Safety Precaution

This is a solvent based paint care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes.

Technical Services

TAM maintains a technical division to investigate and advice on all problems related to corrosion control. The divisions will advice on the correct selection of and specification for the required protective and marine coating system. Contact the division through TAM head office.