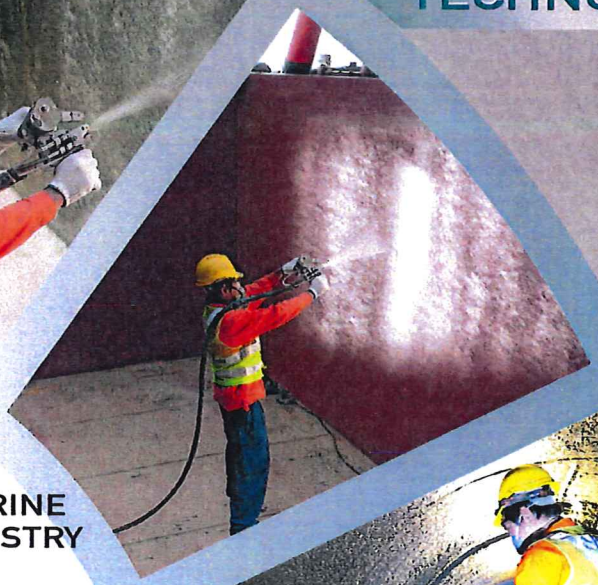
FIBER TECH®

Fiberglass Reinforced and Rehabilitation System

WATER TANK

CHEMICAL TANK

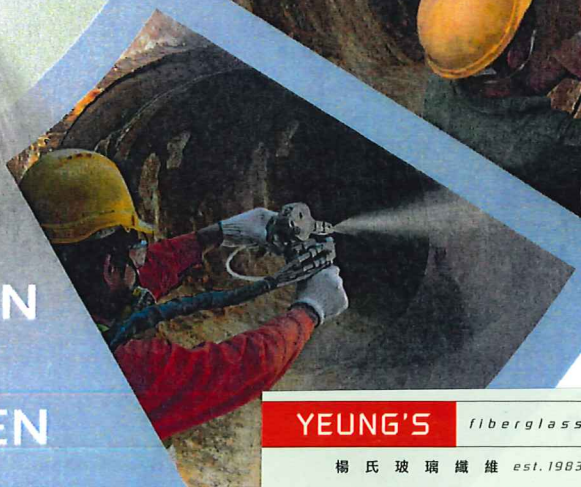
SEMI-AUTOMATIC SPRAYING TECHNOLOGY

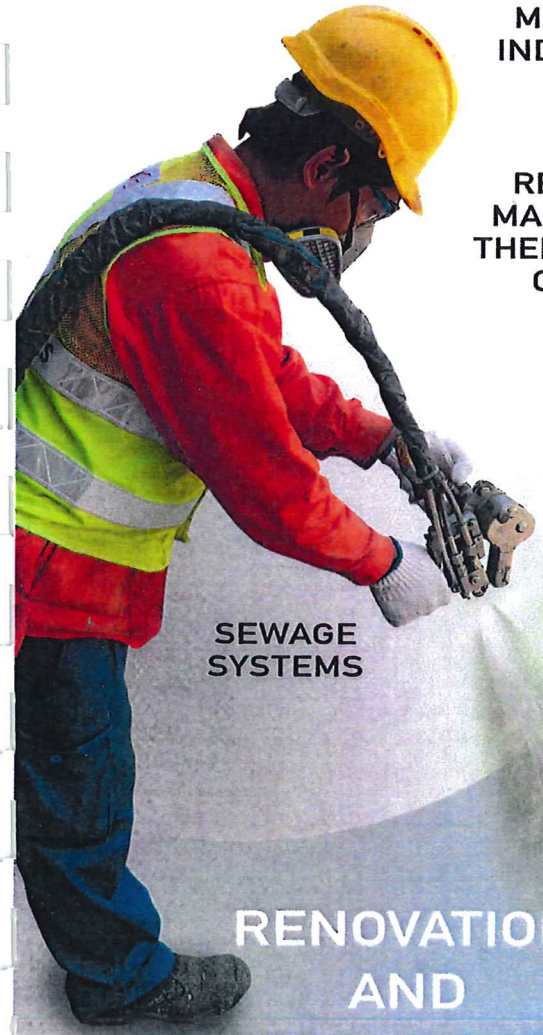


MARINE INDUSTRY

REPAIR AND MAINTENANCE THERMOPLASTIC COATINGS

PIPELINE



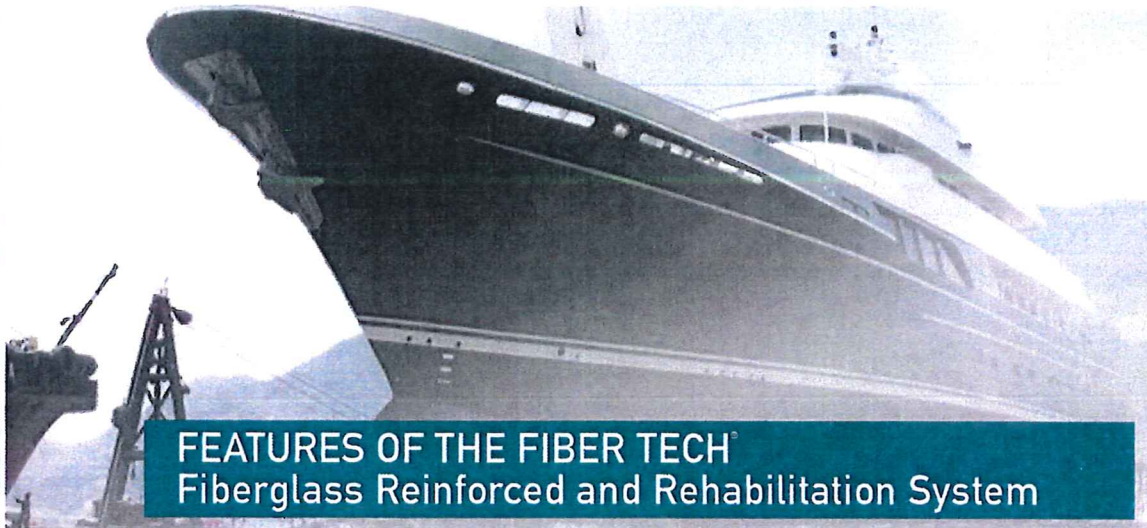


SEWAGE SYSTEMS

RENOVATION AND STRENGTHEN

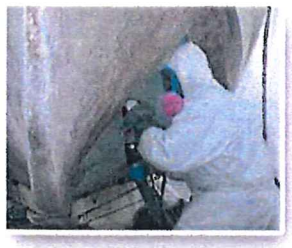
YEUNG'S fiberglass
楊 氏 玻 璃 纖 維 est. 1983
ISO 9001 : 2015 & ISO 14001 : 2015 國際認證

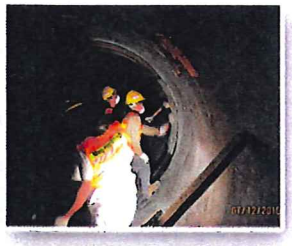
香港灣仔軒尼詩道338號
北海中心 22 樓 B 室



FEATURES OF THE FIBER TECH®
Fiberglass Reinforced and Rehabilitation System

- CAN BE APPLIED ON EXTERNAL (DN 100mm - UNLIMITED SIZE) OR INTERNAL (DN 600mm - UNLIMITED SIZE) SURFACES.
- CAN BE APPLIED ON NON-TYPICAL SHAPE (I.E. SHARP ANGLE).
- FORMULATED FOR USE ON CONCRETE, STEEL, AND COMPOSITE SURFACES.
- UNIFORM STRENGTH IN ALL-AROUND ORIENTATION CAN BE DESIGENED TO STRENGTHEN THE STRUCTURE.
- FINISHING REDUCES SURFACE COEFFICIENT OF FRICTION HEAD LOSS OF PLPING.
- CUSTOM DESIGN AND TECHNICAL BACKUP IS AVAILABLE.
- LONGER DESIGN LIFE UP TO 50 YEARS.
- FIBER TECH®ATLAC 430 COATING IS AVAILABLE FOR POTABLE WATER APPLICATIONS MET THE REQUIREMENTS OF BS 6920.
- KEEP PROJECTS WITHIN REASONABLE BUDGETS AND TIME CONSTRAINT.
- ADVANCED COMPOSITE SYSTEM CAN OFFER AN UNIQUE AND EFFECTIVE SOLUTION TO DETERIOATED OR OVER STRESSED STRUCTURES.
- CONTINUOUS WORKING LENGTH LESS LAPPED JOINT, LESS CHANCE OF DISCREPANCY.
- AUTOMATIC SYSTEM LESS SURPRISE, UNIFORM STRENGTH PROPER PROPORTION OF CATALYST AGENT, AUTOMATIC DOSING.





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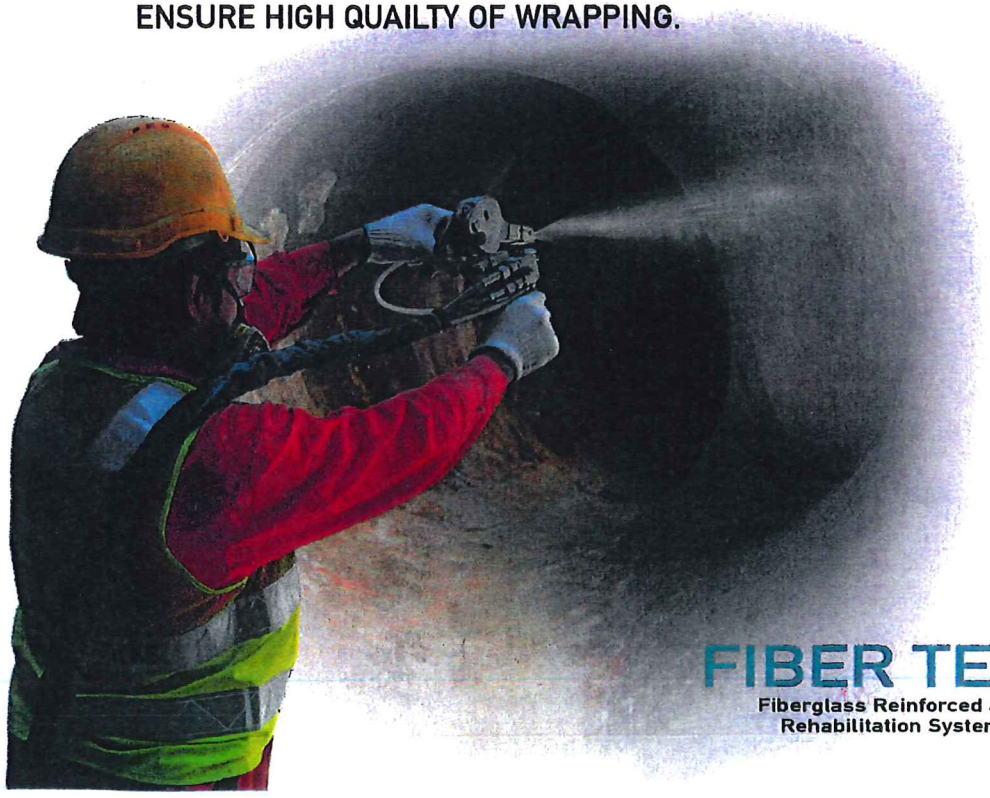
FIBER SPRAY IS A MOST PROFESSIONAL. HIGH EFFICIENCY, ECONOMICAL FIBERGLASS REINFORCED WRAPPING SYSTEM. IT IS 100% FASTER THAN THE HAND LAY-UP PROCESS. THE DIFFERENCE CAME FROM THE SPRAYING APPLICATION OF THE FIBERGLASS AND RESIN MATERIAL TO THE MOULD OR SURFACES YOU NEEDED. SPRAY-UP IS A COMPOSITES FABRICATION PROCESS WHERE RESIN AND REINFORCEMENT ARE WELL MIXED AND SPRAYED ON SUBSTRATES. THE BASE REINFORCEMENT MATERIAL FOR THIS PROCESS IS GLASSFIBRE ROVING, WHICH ARE CHOPPED INTO SEGMENTS OF 10 TO 30MM AND THEN APPLIED SEPARATELY OR SIMULTANEOUSLY IN A COMBINED STREAM FROM A CHOPPER GUN. ONCE THE METERIAL IS SPRAYED, BRUSHES AND ROLLERS ARE USED TO REMOVE TO REMOVE ENTRAPPED AIR AS WELL AS TO ENSURE HIGH QUAILTY OF WRAPPING.



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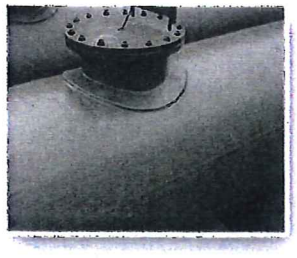




FIBER TECH® Fiberglass Reinforced and Rehabilitation System

FIBER-TECH IS A COMPOSITE FIBERGLASS REINFORCED AND REHABILITATION SYSTEM FORMULATED FOR INTERNAL OR EXTERNAL USE ON CONCRETE, STEEL, SOME RESINE SURFACE, ELASTOMERIC ADRESIVES, EXTREME HIGHT GLASS COATINGS, LOW ACTIVATION INTERIOR COATINGS, MARINE MAINTENANCE COATINGS, PRE-TREATMENT PRINERS, REPAIR AND MAINTENANCE THERMAPLASTICS COATINGS AND TANK LINING COATINGS ETC, WHICH REQUIRED OUTSTANDING RESISTANCE TO WATER, CHEMICAL AND UV EXPOSURE, STRONG TENSILE PROPERTY SUITABLE FOR PRESSURIZED PIPELINE, WATER TANK, CHEMICAL TANK. SEWAGE SYSTEM, MAINTENANCE & STRENGTHEN STURCTURE.

(ASTM D3039-95A / ASTM D 790-07)

NO. OF LAYER	LAYER THICKNESS	MODULUS OF ELASTICITY	TENSILE STRENGTH	FLEXURAL STRENGTH	COMPRESSION STRENGTH	DENSITY
3 LAYER	3 mm	5.14 GPa	74 Mpa	170 Mpa	385 Mpa	1255
5 LAYER	5 mm	6.84 GPa	83 Mpa	177 Mpa	364 Mpa	1389
7 LAYER	7 mm	7.03 GPa	90 Mpa	176 Mpa	377 Mpa	1380

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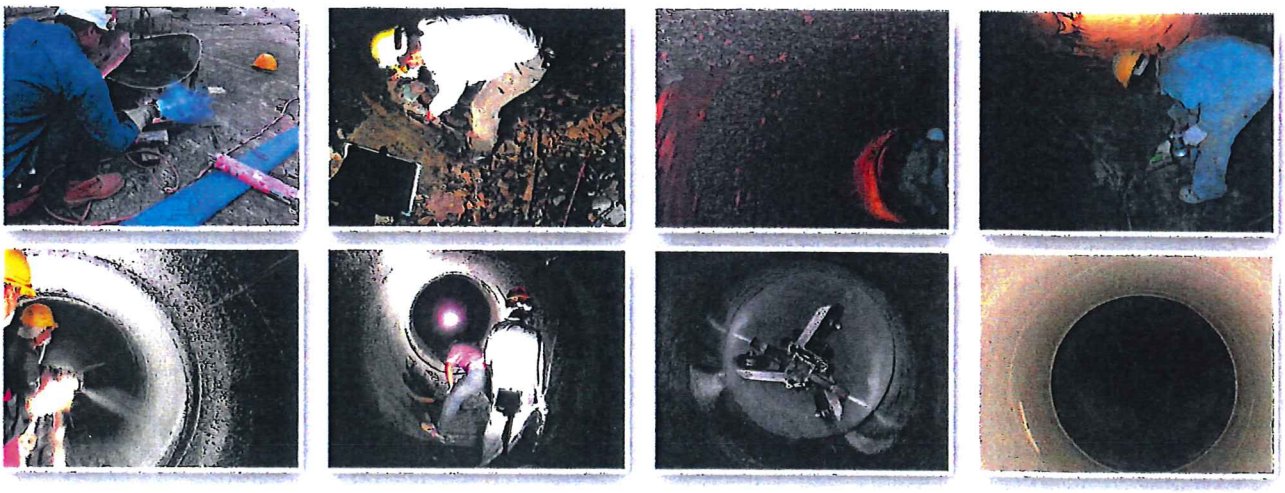
Comparison of Fiberglass Reinforced and Rehabilitation System

	Epoxy Paint	FRP Coating	Remarks
1. Base	Epoxy	Vinyl Ester	
2. Application	Steel and concrete	Metal, concrete and plastics	
3. Chemical Resistance	Good	Excellent	FRP coating suits extreme chemical conditions, including application in alum solution
4. UV Resistance	Fairly Good	Excellent	Yellowing and chalking occurs on epoxy paint in long term exposure
5. Working Temperature	Up to 60°C	Up to 140°C	Better heat resistance, thus thermal stresses
6. Thermal Expansion	0.75 x 10^ -6 m/m/°C	0.3 x 10^ -6 m/m/°C	FRP has less reaction to temperature changes
7. Tensile Strength	~25 MPa	~88 MPa	FRP reinforced with glass fiber has extreme strengths and less likely to crack / peeling to epoxy paint
8. Flexural Strength	~50 MPa	~175 MPa	
9. E-Modulus	~4 GPa	~6.5 GPa	
10. Elongation	~2.7%	~6.1%	
11. Curing Time	4 days	24 hours	Shorter curing time for FRP
12. Curing Factor	Temperature, Humidity	Temperature, Curing Compund	FRP Coating will have less impacts from surrounding during curing
13. Application Method	Roller	Spray	FRP is relatively more budgetary in time and labour cost
14. Mould Resistance	Good	Excellent	FRP performs better due to lower water absorption rate



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