



resimac Ltd. 

Repair

Protect

Upgrade

Composite Pipe Wrapping Systems Guide

Temporary Repair



Composite Pipe Wrapping - Product Selector Guide

		103	108	109	110	301	302	701
Product Characteristics	Epoxy	☒				☒	☒	
	Polyurethane		☒					
	Glass Tape							☒
	Rubber Tourniquet				☒			
	Silicon Tape			☒				
	Solvent Free	☒	☒	N/A	N/A	☒	☒	N/A
	1 Component Resin		☒					
	2 Component Resin	☒				☒	☒	
	Bureau Veritas Approved	☒	☒			☒		
	Curing (20°C)	Full Cure 30mins		☒	N/A	N/A		
Full Cure 60mins		☒		N/A	N/A			N/A
Full Cure 48hrs				N/A	N/A		☒	N/A
Full Cure 72hrs				N/A	N/A	☒		N/A
Surface Preparation	Manual	☒	☒	☒	☒			
	Mechanical ST2/3	☒	☒	☒	☒	☒	☒	☒
	Abrasive Blast SA2.5					☒	☒	☒
	Damp/ Wet Surface	☒	☒	☒	☒			
Temperature Resistance	Dry 150°C	☒			☒	☒	☒	☒
	Dry 240°C		☒	☒				
	Immersion 50°C	☒						
	Immersion 70°C				☒	☒	☒	☒
	Immersion 120°C		☒	☒				
Application	Live water leaks	☒	☒	☒	☒			
	Rebuild surfaces						☒	
	Gap filling and injection					☒	☒	
	Pipe Repairs <250mm Diameter	☒	☒	☒	☒	☒	☒	☒
	Pipe Repairs >250mm Diameter		☒			☒	☒	☒

Composite Pipe Wrapping - System Selector Guide

System 1 Live Leak Repair	Max Pipe Diameter	Surface Preparation	Max Temperature	Max Pressure	Return to Service
109 Silicon Tape	250mm/ 10"	Manual Surface Preparation	50°C/ 120°F	3bar/ 43.5psi	15mins

System 2 Live Leak Repair	Max Pipe Diameter	Surface Preparation	Max Temperature	Max Pressure	Return to Service
110 Rubber Tourniquet/ 103 Metal Repair Stick	150mm/ 6"	Manual Surface Preparation	50°C/ 120°F	5bar/ 72.5psi	60mins
	150mm/ 6"	Mechanical Surface Preparation ST2/3	50°C/ 120°F	7bar/ 101.5psi	60mins

System 3 Live Leak Repair	Max Pipe Diameter	Surface Preparation	Max Temperature	Max Pressure	Return to Service
110 Rubber Tourniquet/ 103 Metal Repair Stick/ 108 Pipe Repair Tape	150mm/ 6"	Manual Surface Preparation	60°C/ 140°F	5bar/ 72.5psi	60mins
	150mm/ 6"	Mechanical Surface Preparation ST2/3	60°C/ 140°F	10bar/ 145psi	60mins

System 4 Offline Repair	Max Pipe Diameter	Surface Preparation	Max Temperature	Max Pressure	Return to Service
103 Metal Repair Stick/ 108 Pipe Repair Tape	450mm/ 18"	Manual Surface Preparation	120°C/ 248°F	5bar/ 72.5psi	60mins
	450mm/ 18"	Mechanical Surface Preparation ST2/3	120°C/ 248°F	10bar/ 145psi	60mins
	450mm/ 18"	Abrasive Blast clean SA2.5	120°C/ 248°F	15bar/ 218psi	60mins

System 5 Offline Repair	Max Pipe Diameter	Surface Preparation	Max Temperature	Max Pressure	Return to Service
302 Epoxy Repair Cement/ 301 Epoxy Resin/ 703 Glass Tape	No restrictions	Mechanical Surface Preparation ST2/3	150°C/ 302°F	10bar/ 145psi	72hrs
	No restrictions	Abrasive Blast clean SA2.5	150°C/ 302°F	20bar/ 290psi	72hrs

Composite Pipe Wrapping – Product Specifications & Chemical Resistance

	103	108	301	302
Corrosion Resistance Tested to ASTM B117	Min 1000 hours	Min 1000 hours	Min 5000 hours	Min 5000 hours
Flexural Strength Tested to ASTM D790	455kg/cm ² (6,470psi)	326kg/cm ² (4,640psi)	912kg/cm ² (13,000psi)	298kg/cm ² (4250psi)
Hardness Shore D to ASTM D785	85	82	85	85
Slump Resistance	25mm	n/a	3mm	20mm
Tensile Shear Adhesion Tested to ASTM D1002	185kg/cm ² (2630psi)	194kg/cm ² (2755psi)	148kg/cm ² (2100psi)	145kg/cm ² (2100psi)
Pull Off Adhesion Tested to ASTM D4541	125kg/cm ² (1780psi)	140kg/cm ² (2000psi)	244kg/cm ² (3480psi)	244kg/cm ² (3480psi)
Volume Capacity cc per kg	444	n/a	860	625
Mixing ratio by volume	n/a	n/a	2:1	1:1
Mixing ratio by weight	n/a	n/a	2:1	1:1

Chemical	System 1	System 2	System 3	System 4	System 5
Drinking Water	X	✓	✓	✓	X
Sea Water	✓	✓	✓	✓	✓
Waste Water	✓	✓	✓	✓	✓
Ammonia Liquid	X	✓	✓	✓	✓
Acetic Acid 10%	X	X	X	X	✓
Butanol	X	X	X	X	✓
Diesel	X	X	X	✓	✓
Formic Acid 10%	X	X	X	X	X
Hydrochloric Acid 10%	X	X	X	✓	✓
Hydrochloric Acid 20%	X	X	X	X	✓
Hydrocarbons	X	X	✓	✓	✓
Mineral Oil	X	X	✓	✓	✓
Nitric Acid 10%	X	X	X	X	✓
Petrol	X	X	X	X	X
Phenol	X	X	X	X	X
Phosphoric Acid 10%	X	X	✓	✓	✓
Sodium Hydroxide 20%	X	✓	✓	✓	✓
Sodium Hydroxide 40%	X	X	X	✓	✓
Sulphuric Acid 10%	X	X	X	✓	✓
Sulphuric Acid 20%	X	X	X	X	✓
Toluene	X	X	X	X	X
Xylene	X	X	X	✓	✓

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