FutureWrap Glycol Technical Summary

ENGINEERED COMPOSITE SOLUTIONS

FutureWrap Glycol™

Repair system	Glycol
Overview	FutureWrap Glycol was developed for the repair of pipework (all components) containing aggressive chemicals on a glass cloth and a two-part post cure epoxy resin. Due to its excellent adhesion strength, FutureWrap Glycol can seal through-wall defects and re-instate the integrity of the damaged/corroded pipework. The technical specification is based on the qualification requirements of ISO 248171.
Applications	Pipework (All components)
Defects	Internal, external, through wall
Fibre type	E-glass - tri-axial stitched cloth (0^0/45^0/-45^0)
Resin type	Epoxy resin (two part) – Ambient Cure
Maximum design temperature (0C)	120
100% exposure to TEG	90
100% exposure to methanol	50
100% exposure to toluene	50
Maximum design pressure (through wall defect) (bar)	50
Maximum design pressure (non-through wall defect) (bar)	350
Modulus 0^0 (GPa)	21
Modulus 90^0 (GPa)	8.9
Poisson's ratio 0^0	0.5
Poisson's ratio 90^0	0.21
Shear modulus (GPa)	2
Thermal expansion coefficient 0^0 ($mm/mm/^0C * 10^{-6}$)	20
Thermal expansion coefficient 90^0 ($mm/mm/^0C * 10^{-6}$)	35
Design allowable strain 0^0 (mm/mm)	0.004
Design allowable strain 90^0 (mm/mm)	0.004
Energy release rate (J/m^2)	583
Cure time (hrs)	24
Chemical resistance	3<pH<10