



Repair system	Glass/LT
Overview	<p>FutureWrap LT was developed for the repair of pipework pipelines (all components), tanks and vessels and is based on a glass cloth and a two-part post cured cure epoxy resin. Due to its excellent adhesion strength, FutureWrap LT can seal through-wall defects and re-instate the integrity of the damaged/corroded pipework.</p> <p>The reinforcement architecture of the fibers is designed to optimise the strength and stiffness of the repair for both through wall and non-through wall defects in pipework. A primer, silane, is used to enhance the chemical bonding of the epoxy to the metallic pipe surface.</p> <p>The technical specification is based on the qualification requirements of ISO 248171.</p>
Applications	Pipework, pipelines (All components) tanks and vessels
Defects	Internal, external, through wall
Fibre type	E-glass - tri-axial stitched cloth (0°/45°/-45°)
Resin type	Epoxy resin (two part) – Ambient cure
Maximum design temperature (°C)	110
Maximum design pressure (through wall defect) (bar)	75
Maximum design pressure (non-through wall defect) (bar)	350
Modulus 0° (GPa)	21
Modulus 90° (GPa)	8.9
Poisson's ratio 0°	0.5
Poisson's ratio 90°	0.21
Shear modulus (GPa)	2
Thermal expansion coefficient 0° (mm/mm/°C * 10 ⁻⁶)	15
Thermal expansion coefficient 90° (mm/mm/°C * 10 ⁻⁶)	35
Design allowable strain 0° (mm/mm)	0.004
Design allowable strain 90° (mm/mm)	0.004
Energy release rate (J/m ²)	409
Cure time (hrs)	24
Chemical resistance	3<pH<10