

Revowrap 110

PRODUCT SHEET



PRODUCT OVERVIEW

Revowrap110

-60°C to 109°C with no pressure limitations!

Revowrap is an engineered composite solution used to restore damaged critical assets back to the original design specification of the equipment. Each repair is engineered using ASME PCC2 or ISO TS 24817 engineering codes for High risk non-metallic repairs. Carbontech engineers have the technology to perform FEA (Finite element analysis) on both the damaged piping systems and the Revowrap composite repair system. Revowrap provides reinforcement of the piping in both the axial and hoop directions, and delivers uniform loading throughout the repair. The "Revowrap110 ®" composite systems are engineered to operate in working temperatures from -60°C to 100°C and bares no pressure limitations. Our composite systems can be applied by hand lamination or by infusion methods and may be applied to live piping systems without shutting down for the repair. Revowrap may be applied to any pipe size, most substrates and almost any piping configuration including tanks, vessels, flanges, and other compromised structural assets.



PRODUCT PERFORMANCE INDICATORS	
ASME Pcc2 Compliancy	Fully Compliant
ISO TS 24817 Compliancy	Fully Compliant
Minimum Application Temperature	9°C
Maximum Application Temperature	100°C
Minimum Allowable Operating Temperature	-60°C
Maximum Allowable Operating Temperature	109°C
Maximum Allowable Operating Pressure	Design Specific
Shelf Life	2 Years – Extendable
Set Time @ 25°C	4 Hours
Minimum Pipe Diameter	No Limitations
Maximum Pipe Diameter	No Limitations
Repair Lifespan	20 Years
Type A Defects	Permissible
Type B Defects	Permissible

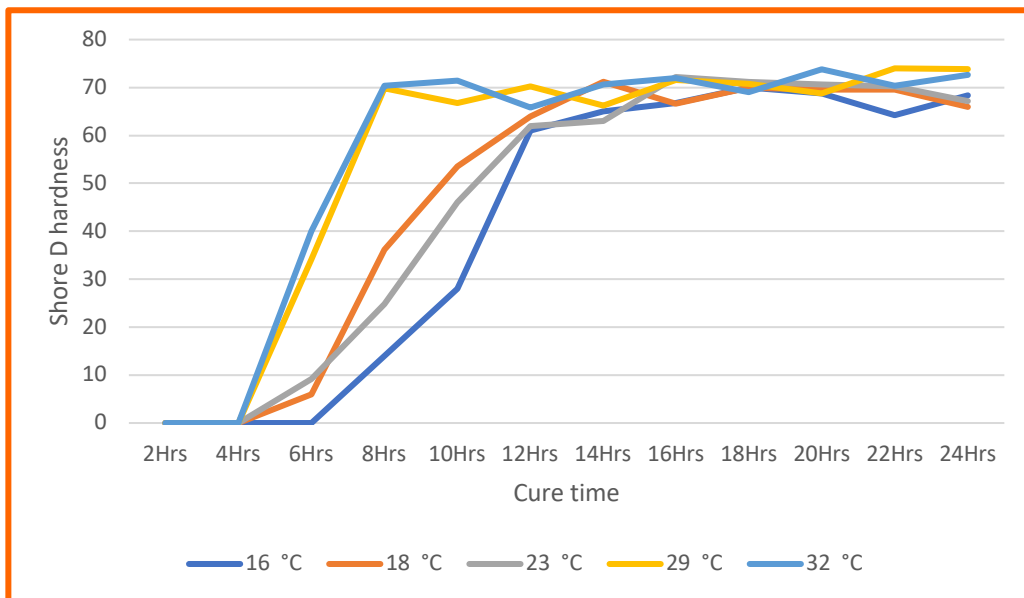
REVOWRAP 110



ISO 24817 and ASME PCC2 REPAIR SYSTEM QUALIFICATION DATA

REVOWRAP 110	TEST	TEST CODE	METRIC	IMPERIAL
	Ply Thickness (mm, inches)	ASTM D3039 [3]	0,4	0,01575
	Tensile Modulus Hoop (GPa, ksi)	ASTM D3039 [3]	48.8	7077.8
	Tensile Modulus Axial (GPa, ksi)	ASTM D3039 [3]	41	5947
	Tensile Strength Axial (MPa, ksi)	ASTM D3039 [3]	229	33.2
	Tensile Strain to Failure (%)	ASTM D3039 [3]	1,1%	1,1%
	In Plane Shear Modulus (GPa, ksi)	ASTM D3039 [3]	1,6	232
	Poisson's Ratio	ASTM D3039 [3]	0,33	0,33
	CTE (mm/°C, In/°F)	ISO 11359-2 [6]	1,45x10 ⁻⁶	8,6x10 ⁻⁷
	Heat Distortion Temperature (°C, °F)	ISO 75-3 [7]	124	255
	Shore D Hardness	ISO 868 [8]	80	80
	Lap Shear Strength – SA2.5 (MPa, ksi)	ASTM D3165 [9]	14.1	2.05
	Lap Shear Strength – SP3 (MPa, ksi)	ASTM D3165 [9]	7.71	1.12
	Lap Shear Strength – SP2 (MPa, ksi)	ASTM D3165 [9]	5.86	0.85

REVOWRAP 110 CURE TIME VS SHORE D HARDNESS



REVOWRAP 110

PACKAGING INFORMATION	
FABRIC	
Product Code	Description
RCT-50-10	320Gsm Carbon Looped Tape: T0.4mm x W-50mm x L-100Meter
RCT-80-10	320Gsm Carbon Looped Tape: T0.4mm x W-80mm x L-100Meter
RCT-100-10	320Gsm Carbon Looped Tape: T0.4mm x W-100mm x L-100Meter
RCT-150-10	320Gsm Carbon Looped Tape: T0.4mm x W-150mm x L-100Meter
RCT-250-9	320Gsm Carbon Looped Tape: T0.4mm x W-250mm x L-50Meter
PRIMER	
Product Code	Description
R110-P-A-1	Revowrap 110 Primer, Part A, 250g
R110-P-B-1	Revowrap 110 Primer, Part B, 68g
R110-P-A-2	Revowrap 110 Primer, Part A, 500G
R110-P-B-2	Revowrap 110 Primer, Part B, 131g
R110-P-A-4	Revowrap 110 primer, Part A, 10Kg
R110-P-B-4	Revowrap 80 primer, Part A, 10Kg
SATURATOR	
Product Code	Description
R110-S-A-1	Revowrap 110 Saturator, Part A, 260g
R110-S-B-1	Revowrap 110 Saturator, Part B, 68g
R110-S-A-2	Revowrap 110 Saturator, Part A, 500G
R110-S-B-2	Revowrap 110 Saturator, Part B, 131g
R110-S-A-4	Revowrap 110 saturation, Part A, 25kg
R110-S-B-4	Revowrap 110 saturation, Part B, 25kg





ADVANTAGES

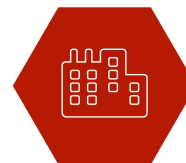


- Fast, Non-invasive repair - does not require hot work
- Repairs done live – no unplanned downtime
- Can Handle complex geometries
- Resistant to Harsh chemicals

INDUSTRIES



- Oil and Gas facilities
- Petrochemical plants
- Chemical plants
- Transmission Pipelines



USES



- Internal Corrosion
- External corrosion
- Mechanical damages
- Weld Anomalies



CONCLUSION:

Revowrap is available in a range of widths and lengths and is designed for variants of pipe diameters and defect ranges. Revowrap may be applied in continuous spiral wraps (used for continuous lengths of pipe), circumferential wraps for localised defects and weld defects). Revowrap 110 is the ideal solution for pipes where corrosion, mechanical damage or support abrasion has reduced the remaining wall thickness to below the MAOP. Once applied Revowrap 110 restores the pipe integrity back to the original design specification and also provides excellent corrosion and abrasion protection.

THE CARBONTECH INNOVATIVE PRODUCT RANGE:

Revowrap 80	High Performance quad-axial glass pipe wrap system used with super strength 2-part epoxy system
Revowrap 110	High Performance Carbon Fibre pipe wrap system used with high temperature 2-part epoxy system
Revowrap 185	High Performance Carbon Fibre pipe wrap system used with high temperature 2-part epoxy system
Revowrap 225	High Performance Carbon Fibre pipe wrap system used with ultra-high temp 2-part epoxy system
Revoshield 124	High Performance fibreglass coating system used with super strength 2-part epoxy system
MV Putty	Medium Viscosity High compression strength Putty used for the profiling of Revowrap® systems
HV Putty	High Viscosity High compression strength Putty used for the profiling of Revowrap® systems
Revostrap	A 20 Second Leak Repair system
Revomat	An Intelligent post cure system for high temperature wrap systems
Rescue saddle	A Carbontech Initiative to safely wrap over active leaks





CARBONTECH

The place chemistry, engineering and global expertise are brought together to drive progressive innovation in advanced composite technologies for the emergency repair of critical assets **"There is nothing generic about us"** we don't just sell pipe wraps; we provide accurate engineering backing to deliver tailored solutions

Sound and responsible engineering is the basis on which we build our company, products and services. It is the core to our success and it is the foundation on which we have engineered and manufactured our innovative and bespoke products

We strive by a zero-failure philosophy and warrant our engineered composite solutions are tested, proven and validated. We vow to provide dependable, responsible and accurate information regarding the capabilities of our systems

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PROGRESSIVE COMPOSITE ENGINEERING

