



# A+ Wrap™

A+ Wrap™ and A+ Max™ are easy-to-install, factory saturated, bi-directional fiberglass composite solutions for on-site permanent repair of corroded and dented pipelines. By eliminating field saturation, resin and fabric measuring, and compressing installation time, A+ ensures the highest repair quality while reducing time to backfill.

## APPLICATIONS

**A+ Wrap** is ideal for:

- Small diameter pipes
- Soil-to-air interfaces
- Corrosion and dents
- Bends and complex geometries

**A+ Max** is ideal for:

- Large pipes
- Severe corrosion and dents
- Aggressive cyclic fatigue

## COMPLIANT WITH: (standards/certifications)

- US CFR 192 and CFR 195
- CSA Z662
- ASME B31 standards
- ISO 24817
- ASME PCC-2 Article 401

## BENEFITS:

- Permanent repair with no disruption to pipeline operation during installation
- Repair can land on laminations, metal loss, and thin wall pipe, allowing installation in areas where Type B sleeves cannot be welded
- Can install, re-coat, and backfill on the same day saving operators time and money
- Easily applied on condensating pipelines and underwater
- Conforms to any shape including elbows, tees, flanges, bends & more
- Customized engineering design package supports regulatory compliance requirements



# A+ Wrap™

## TECHNICAL DATA

PROPERTY	CIRCUMFERENTIAL DIRECTION		AXIAL DIRECTION	
	A+ Wrap	A+ Max	A+ Wrap	A+ Max
Tensile Strength	53.25 ksi (367 MPa)	65.31 ksi (450 MPa)	23.81 ksi (164 MPa)	12.67 ksi (87 MPa)
Tensile Modulus	3.68 Msi (25.4 GPa)	4.68 Msi (32.2 GPa)	1.75 Msi (12.1 GPa)	1.22 Msi (8.4 GPa)
Ply Thickness	0.014"	0.027"		
Glass Transition Temperature	260°F (126°C)			
Hardness	75			
Max Recommended Application Temperature	120°F (50°C)			
Shelf Life	12 months			

## CURING SCHEDULE

TEMPERATURE		SET TIME	CURE TIME
(C)	(F)	(HRS)	(HRS)
10	50	5.20	24
16	60	3.45	15
24	75	2.30	5.5
32	90	2.00	4.25
49	120	1.00	3

## REPAIR SYSTEM COMPONENTS:

- Filler: EPN-101, ESN-202, EPN-242
- Primer: PPR-220, PPR-290
- Prepreg: AP-FP, APM-FP

**WARRANTY** CSNRI routinely implements product improvements. Please contact your local distributor or office for the most current product specifications. CSNRI warrants the quality of this product when used according to directions.

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**ISO 9001 Certified**

### LIBERTY SALES & DISTRIBUTION

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