



401 Fiberglass Pipe Repair Tape

A rapid-curing pipe repair bandage especially formulated to make quick and effective repairs of cracks, leaks, fractures, and corrosion porosity in piping systems carrying water, oil, steam, most gases and even solvents. ensures reliable, reinforced repairs, enhancing the strength and longevity of piping systems in industrial, marine, and offshore environments.

Key Specifications

No mixing or tools needed

Ready for use after soaking in water for 10 seconds

Availability

401-S	2" x 2 yds (5cm x 1.8m) Pipe dia up to 2 1/2" (DN75)
401-M	2" x 4 yds (5cm x 3.6m) Pipe dia up to 5" (DN125)
401-L	4" x 5 yds (10cm x 4.8m) Pipe dia up to 8" (DN200)
401-XL	6" x 11 yds (15cm x 10m) Pipe dia up to 14" (DN350)

Application Areas

UNIGRIP Pipe Tape is a tough, durable, anti-corrosion repair bandage specially formulated for rapid fixes of pipe leaks, cracks, and structural damage, and for restoring integrity to corroded or weakened pipes and structures, it also provides superior protection against environmental corrosion, wear, and abrasion. Ideal for industrial, marine, and offshore applications. The Unigrip pipe tape ensures strong, long-lasting repairs, reinforcing piping systems and structures for enhanced durability and reliability.



Product Data Sheet

401 Fiberglass Pipe Repair Tape

UNIGRIP
DANTECH ELITE COMPOSITES

Description:

TUNIGRIP Pipe Tape is a tough, durable, anti-corrosion repair bandage specially formulated for rapid fixes of pipe leaks, cracks, and structural damage, and for restoring integrity to corroded or weakened pipes and structures, it also provides superior protection against environmental corrosion, wear, and abrasion. Ideal for industrial, marine, and offshore applications. The Unigrip pipe tape ensures strong, long-lasting repairs, reinforcing piping systems and structures for enhanced durability and reliability.

Intended Use:

For repairing damaged or leaking pipes, and for reinforcing weakened and corroded pipes, joints and structures

Key Features:

- Excellent adhesion to all metallic surfaces which makes the highly suitable for repair of corroded pipes
- Good pressure resistance.
 - a) Pressure resistance as is: 10 Bar (145psi). Based on 9 layers
 - b) Pressure resistance by double layer "2 x 9 layers" and use of Unigrip Putty: 103 Bar (1500psi)
- Service temperature:
 - a) Continuous: 150°C (300°F)
 - b) Peak: 190°C (374°F)
- Ready for use in "just" 10 seconds
- Versatile Application: It can be used on various pipe materials, including metal, plastic, and composite pipes.
- High Strength: The tape provides a strong, permanent repair that resists pressure, chemical exposure, and extreme environmental conditions.
- Corrosion-Resistant: The Unigrip Pipe Tape offers long-lasting protection against corrosion, extending the life of the repaired pipes.
- Available in 4 different sizes. Pipe diameters from 0.5" to 24"
- Resistance to chemicals, crude oil, diesel, Ketones, alcohols, esters, halocarbons, aqueous salt solutions, dilute acids, bases, solvents, and alkalis.

Benefits:

- **No mixing tools needed**
- **Rapid curing pipe tape:** Once activated with water, the tape cures in 7-10 min, making it an ideal solution for emergency repairs. (fully cured in approx. 30 min)
- **Water-Activated:** The resin in the tape activates upon contact with water, making it easy to apply even in wet or underwater environments.

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DANTECH ELITE COMPOSITES

Packaging:

UNIGRIP Pipe Tape is supplied in sealed foil bags, and available in 4 different sizes. Pipe diameters from 0.5" to 20".

- a) Unigrip 401: Pipe tape 2" x 2 yds (5cm x 1.8m) / Pipe dia up to 3" (DN75)
- b) Unigrip 402: Pipe tape 2" x 4 yds (5cm x 3.6m) / Pipe dia up to 5" (DN125)
- c) Unigrip 403: Pipe tape 4" x 5 yds (10cm x 4.8m) / Pipe dia up to 10" (DN250)
- d) Unigrip 404: Pipe tape 4" x 11 yds (15cm x 10m) / Pipe dia 10" to 24" (DN600)

Customized pipe repair kits: (UNIGRIP 400 SERIES)

Shelf Life:

The Unigrip Pipe Tape should be stored out of direct sunlight in dry frost free conditions of temperatures between 5°C and 20°C. Under such conditions shelf life will be 36 months from the date of manufacture. One year minimum from date of shipment when stored in original, unopened container in a dry area at temperatures below 75°F (24°C).

Test results:

Note: All results and values mentioned above were achieved by our in-house laboratory and should be used as a guideline only.

Users are encouraged to conduct their own tests if they have any doubts.

Inhouse test results as follows:

- 2 inch pipe leak, 9 layers of Unigrip pipe tape in conjunction with Unigrip putty = 800psi pressure before leaking
- 2 inch pipe leak, 2 x 9 layers of Unigrip pipe tape in conjunction with Unigrip putty = 4000psi pressure before leaking. Proven performance: sustained 3500 psi for 24 hours with no drop in pressure / end of test.

Technical Data Sheet

401 Fiberglass Pipe Repair Tape

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DANTECH ELITE COMPOSITES

Technical data and performance

Curing Time at 20°C (68°F)	
Working Time	3-5 minutes
Cured material life	10-20 years dependent on repair quality, environmental conditions, pipe temperature etc.
Initial Cure Time	7-10 minutes
Full cure Time	30minutes

Mechanical Properties	
Tensile Strength	5075psi
Pressure resistance	145psi / 10 bar (Based on 9 layers) 450psi / 31 bar (when used with putty) 1500psi / 103 bar (double layer "9 x 2 layers" when used with putty)
Shore D Hardness	70

Appearance	
Single Pack	Color White

Shelf Life	
3 Years	If unopened and stored in normal dry conditions 60-86 °F (15-30°C)

Maximum Heat	
Continuous: 150°C (300°F)	Peak: 190°C (374°F)

Chemical resistance

·Please consult the Unigrip pipe tape / chemical resistance list

For best results:

Do not apply when:

- The temperature is below 41 °F (5 °C)
- The working surface are not yet prepared acc. to UNIGRIP guidelines
- The working surface is contaminated by dirt/oil/grease etc.

Safety data:

·For additional health and safety information, consult a Safety Data Sheet.

Instruction for use

401 Fiberglass Pipe Repair Tape

Surface preparations:

In order to achieve optimum adhesion, surfaces should be cleaned free of grease, dirt, paint etc., and preferably should be dry. To ensure a good bond, abrade both surfaces followed by additional cleaning

Preparations:

- Ensure that the correct size UNIGRIP pipe tape is accounted for prior to commencement of the application. The UNIGRIP pipe tape is available in three different sizes (see below guide).
- Account for the required number of rolls to complete the application. Keep in mind that a minimum 9-layer wrap of UNIGRIP pipe tape is recommended per application. Follow this guide

Withstands up to 1500 psi/103 bar						
Pipe Diameter	Pipe Circle	9 wrap x circles	Pipe Tape	Pipe Tape	Pipe Tape	Pipe Tape
<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>2 Inch x 6ft</i>	<i>2 Inch x 12ft</i>	<i>4 Inch x 15ft</i>	<i>6 Inch x 33ft</i>
0.25	0.8	7.1	One Unit			
0.5	1.6	14.1	One Unit			
0.75	2.4	21.2	One Unit			
1	3.1	28.3	One Unit			
1.5	4.7	42.4	One Unit			
2	6.3	56.5	One Unit			
3	9.4	84.8	Two Units			
4	12.6	113.1	Two Units	One Unit		
5	15.7	141.4		One Unit		
6	18.8	169.6		Two Units	One Unit	
8	25.1	226.2		Two Units	One Unit	
10	31.4	282.7		Two Units	One Unit	
12	37.7	339.3			One Unit	
14	44.0	395.8			Two Units	One Unit
16	50.3	452.4				One Unit
18	56.5	508.9				Two Units
20	62.8	565.5				Two Units
22	69.1	622.0				Two Units
24	75.4	678.6				Two Units

DO NOT open the foil pouch until the UNIGRIP pipe tape is ready to be used as the reaction commences on exposure of the pre-impregnated fiberglass bandage to atmospheric moisture. Fill a small bucket of water and account for a spray bottle, or similar water-spraying device, and fill with clean water.

Instruction for use

401 Fiberglass Pipe Repair Tape

UNIGRIP
DANTECH ELITE COMPOSITES

Working life:

After contact with water (activation), UNIGRIP Pipe Tape must be used within the times shown below.

Working Time	3-5 minutes
Cured material life	10-20 years dependent on repair quality, environmental conditions, pipe temperature etc.
Initial Cure Time	7-10 minutes
Full cure Time	30minutes

For best results:

Do not apply when:

- a) The temperature is below 41 °F (5 °C)
- b) The working surface are not yet prepared acc. to UNIGRIP guidelines
- c) The working surface is contaminated by dirt/oil/grease etc.

HAND APPLICATION

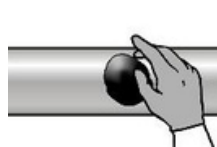
- a) Clean and roughen the working surface.
- b) Using gloved hands, open the foil pouch, and remove the UNIGRIP pipe tape roll.
- c) Immediately, immerse the pipe tape roll in water (free of visible contaminants) for at least 10 seconds to activate the resin that is already impregnated into the pipe tape.
- d) Apply the activated pipe tape firmly onto the repair area ensuring adequate contact with the substrate.
- e) With your gloved hands (or spray bottle) add water to the roll of
- f) UNIGRIP pipe tape as it is being wrapped around the repair section.
- g) Apply hand tension (50% overlap) to prevent any entrapped air and to ensure adequate contact with the substrate and between water-activated layers of UNIGRIP pipe tape. Work quickly as UNIGRIP pipe tape sets at a fast speed.
- h) After the application is complete, using water-wet gloved hands, smooth the repair as much as possible. Remember, Unigrip pipe tape sets quickly.
- i) Ensure that a minimum 9-layer wrap of UNIGRIP Pipe tape is applied over the damaged area within its working life.
- j) If UNIGRIP pipe tape hardens before the entire roll is fully applied, cut, and discard hardened remaining portion of the roll.



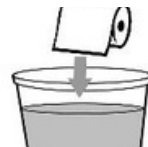
Pressure shut off
Prior to application
thoroughly clean
and roughen the
damaged area



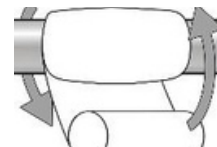
Knead the epoxy
putty until a
uniform grey
color.



Apply firmly onto
the
damaged area.



Soak the pipe tape
in water for 10
seconds. Squeeze
out excess water.



Quickly and firmly
Wrap the Pipe Tape
around
the damaged area.
9 complete wraps
with
50% overlap for a
secure and durable
seal.



Keep wetting the pipe
tape while firmly
pressing and molding
until it begins to set,
to enhance adhesion
and strength.

Instruction for use

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DANTECH ELITE COMPOSITES

APPLICATION OF ADDITIONAL WRAPS

For larger diameters requiring additional wraps of UNIGRIP pipe tape repeat steps in section (2. a-j). Apply additional wraps immediately onto UNIGRIP pipe tape

ACTIVE LEAK APPLICATION

The UNIGRIP pipe tape is not recommended for sealing an active leak. In such cases, complete removal of pressure is recommended. If not possible, pressure should be reduced as high as 40 psi (2.5 bar) and UNIGRIP Pipe Tape should be used in conjunction with Item 301/302 UNIGRIP Putty to seal the active leak before attempting any repair with UNIGRIP Pipe Tape.

Repairing pressurized piping systems with working pressure above 145 psi (10 bar), it is advised that you use the Item 301/303 UNIGRIP Putty in conjunction with the UNIGRIP Pipe Tape (max pressure 1500 psi (103 bar))

UNDERWATER APPLICATION

The UNIGRIP pipe tape can be applied underwater. In this case, the pre-impregnated resin will be activated by fresh or saltwater.

- a) Using gloved hands, open the foil pouch one at a time and remove the UNIGRIP pipe tape roll.
- b) Apply to the underwater repair area as in steps 6, 7 and 8 in section "Instructions for use" above.
- c) Allow the repair to cure.

FINAL INSPECTION

- a) Upon completion of the application, visually inspect the repair to ensure that the UNIGRIP Pipe Tape is smooth without any creases or loose sections.
- b) The ends of UNIGRIP Pipe Tape land on prepared substrate and are tightly adhered.
- c) Apply more UNIGRIP pipe tape if needed in accordance with section 2. above.

CURING

d) UNIGRIP pipe tape should be allowed to ambient or underwater cure for 10 – 15 min. to achieve 90% mechanical strength.

Fully cured within 30 min at 20°C (68°F), full mechanical strength

Always follow best practices when mixing and applying this product. Wear protective gloves during handling and application. Before use, carefully read the full Material Safety Data Sheet (MSDS) for detailed safety guidelines.