TECHNICAL DATA SHEET

MT204 - RAM-WRAP PIPE REPAIR SYSTEM

Last Rev Date: 11/01/2006

Description

MT204 - RAM-WRAP PIPE REPAIR SYSTEM is a complete first aid kit for making emergency, temporary, or permanent pipe repairs quickly, easily and effectively. Repairs metal, plastic or composite pipe leaks in minutes.

The **MT204 - RAM-WRAP PIPE REPAIR SYSTEM** system includes:

- A pipe-wrap repair tape made from water activated polyurethane on a fiberglass substrate.
- A hand-moldable, two-part epoxy for filling and sealing.

The **Ram-Wrap** system is designed to utilize these two repair components together in the same application, however, the pipe-wrap tape and the two-part epoxy can also be used separately as very effective individual repair methods.

Features - Pipe Wrap Tape:
- Quick setting.
- Repairs made easily on ship, at sea.
- Repairs made by one man.
- No special tools required.
- No dangerous welding, brazing or soldering.
- Works on wide range of pipe materials.
- Stops leaks and reinforces pipe couplings.
- Great pressure retention/ high temperature resistance.
- Cures to hard, durable repair in 30 minutes.
- Can be applied under water

Features - Epoxy Filler/ Sealer
- Two-part, steel-filled epoxy.
- Hand moldable.
- Simple to use.
- Stops leaks and fills large holes.
- Sets rock-hard in 20 minutes.
- Wide temperature range.
- Can be machined, drilled, lapped, threaded, ground, filed, sanded or painted after fully cured.
- Works under water.

Ram-Wrap Repair Tape is recommended for simple leaks up to 1/8 inch (3.2 mm) in diameter. For more complex problems, larger holes, leaks at offsets and threaded fittings, use the plug of **Steel Filled Epoxy** to mold and fill the leak site first and then quickly follow with **Ram-Wrap Repair Tape**.

Surface Preparation

Remove all pressure from the pipe, including gravity fed drip. Remove oil, grease, loose rust scale, sealant tape and paint from repair area. Rough scale a four inch path 360º around pipe centering leak site.

NOTE: Both products work best on a rough surface. If pipe surface is pitted by rust, remove the loose scale. If surface is smooth, as with copper or stainless, you must roughen the area with a coarse file, rasp or saw blade. For plastic pipe, the external mold release must be removed. Coarse grit sandpaper works well. A saw blade may also be used to create a cross hatch pattern. This is particularly useful on polyethylene, polypropylene and PVDF piping.

Application

Open **MT204 - RAM-WRAP PIPE REPAIR SYSTEM** container, remove contents, BUT DO NOT OPEN FOIL POUCH UNTIL LEAK SITE IS COMPLETELY PREPARED TO RECEIVE TAPE. Fill container with water and put on rubber gloves supplied in container. Keep gloves on until **Ram-Wrap** and **Steel Filled Epoxy** application is complete. Remove plastic covering from **Steel Filled Epoxy** plug supplied in container and knead by hand like dough until color is uniform. Place **Steel Filled Epoxy** directly over and press into leak site or void area, but not beyond wall thickness of pipe. If leak is at an offset, you may wish to roll **Steel Filled Epoxy** between hands, molding plug into a rope long enough to cover the leak site and extend 360º around pipe circumference and smooth into transition. **Steel Filled Epoxy** sets rock hard in about 20 minutes and cures fully in one hour. Immediately follow **Steel Filled Epoxy** application with **Ram-Wrap Repair Tape** (no need to wait until **Steel Filled Epoxy** is cured) as follows:

Open pouch at notch, remove roll of **Ram-Wrap Repair Tape**, submerge roll in water and squeeze two or three times, for about five seconds. **NOTE**: Water activates the resins, so apply entire roll as any amount remaining cannot be saved. Working time is three to five minutes, so be prepared to work swiftly. Remove roll from water and wrap quickly and tightly as follows: Center tape over leak site, wrap from bottom of roll, pulling firmly throughout application. After 5-7 plies, you will observe resin foam coming through tape, which is desirable and aided by pulling tape tightly. Continue until entire roll is applied, building to a minimum thickness of 1/2 inch (12 mm) and use a second roll if necessary. Firmly press and smooth end of roll into wrap in the direction of application. Wet gloves in water, smooth and firmly press the wet resin back into the wrap. Keep hands moving quickly and wet gloves frequently to avoid sticking. Continue rapid hand movement pressing and polishing resin in motions around and parallel to the pipe. Continue process until resins are no longer tacky. Your repair should now have a smooth, hard cap and an ivory-like appearance with no fiberglass substrate showing through the resins.

NOTE: If a thicker application is needed, spend a little less time finishing the first roll and immediately begin the application of the next. Finish the final roll as if a single roll application.

Reinforce Plastic Pipe Couplings: Apply **Ram-Wrap Repair Tape** over coupling to a minimum of two linear inches (5 cm) on either side of coupling, spiral and build to a minimum thickness of 1/4 inch (7 mm). On two inch (5 cm) diameter PVC pipe, **Ram-Wrap Repair Tape** can increase pull out strength by over 2000 pounds.

Precautions

Store product in a cool place or insulate from hot atmosphere. Should over-heating occur, reduce temperature by placing unopened pouch in cool water for a few minutes before using to avoid setting before your application is complete.

Caution

Steel Filled Epoxy resins and ammonia may irritate sensitive skin, so wash hands with soap and water following use. Handle uncured material with protective gloves. May be harmful if swallowed.

KEEP OUT OF REACH OF CHILDREN.

Avoid eye contact. May cause eye irritation. In case of eye contact, flush eyes with plenty of water and call a physician. Avoid prolonged breathing of vapors from uncured material.

Product Sizes

6 (2in x 4ft) TUBS PER CASE (2.4

6 VESSEL PACK TUBS PER CASE

6 (2in x 12ft) TUBS PER CASE (4.02

6 (4in x 12ft) TUBS PER CASE (4.98