

APPLICATION GUIDE

These application instructions outline the correct application of Denso products for P1 and P2 specifications for the protection of ferrous pipes, joints and fittings within the water industry.

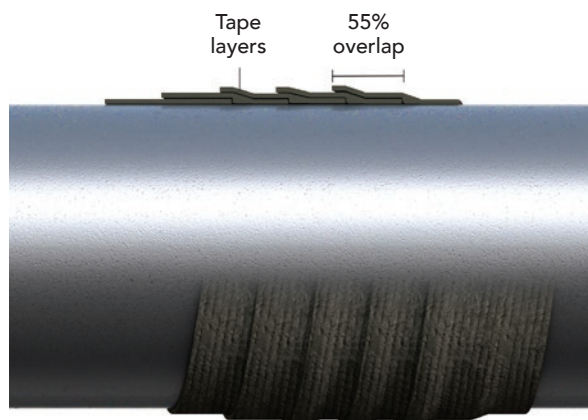
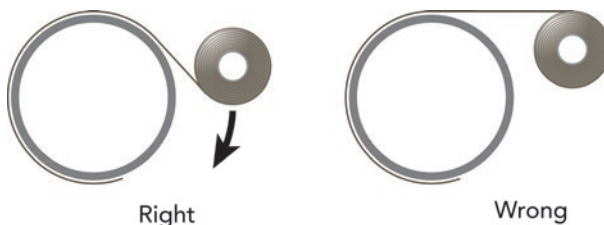
**FIG. 1****FIG. 2****FIG. 3**

Diagram of correct application procedure

SCOPE

These application instructions are prepared by Winn & Coales (Denso) Ltd in accordance with 'Civil Engineering Specification for the Water Industry – 8th Edition.'

EQUIPMENT AND TRAINING

- Wire brush for surface preparation.
- Brushes required for the application of Denso Paste™ and Denso Primer D™.
- PPE must be worn in accordance with the manufacturer's recommendations as set out in the Safety Data Sheets.

No special training is normally required for applicators. It is recommended that the applicators are competent in general building practices.

APPLICATION – GENERAL ADVICE

Denso™ Profiling Mastic – Make sure that all voids are filled with mastic prior to applying the tape (Fig. 1).

Denso™ Tapes – Select as wide a width of tape as practical, e.g. 75mm wide for 75mm diameter pipe. For P1 and P2 applications apply tapes with 55% overlap to give double thickness (Fig. 2).

Ensure tape is applied the right way around to ensure adhesive is on the right side (Fig 3).

1. SURFACE PREPARATION

Clean the joint and adjacent pipe thoroughly so that they are free from loose scale, rust, dirt etc.

Ensure the joint and adjacent pipe are as dry as possible before the application of the system.



2. METHOD OF APPLICATION

Using a stiff brush or gloved hand apply Denso Paste™ to the joint and surrounding pipe making sure all surfaces are covered with a thin continuous coating.



3. DENSO PROFILING MASTIC

Then apply Denso™ Profiling Mastic, working into all hollows and voids to create a smooth contour for tape wrapping.

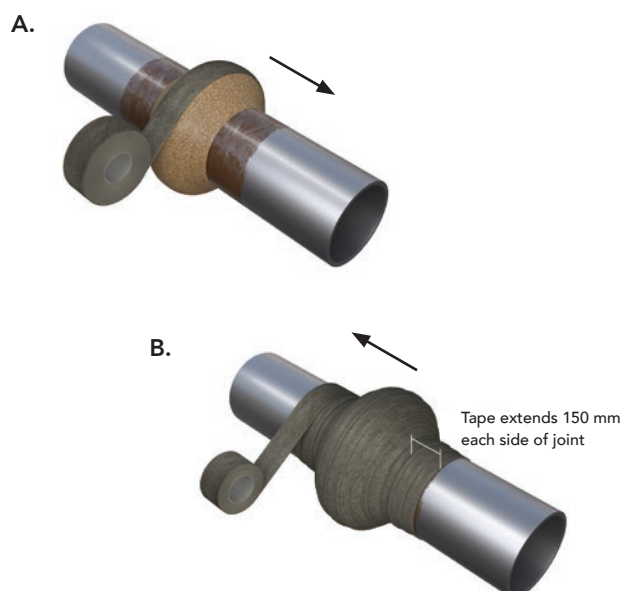


4. DENSO TAPE

Next spirally wrap Denso Tape™ with tension making sure a 55% overlap is achieved which ensures a double wrap at all areas. Be sure to start from the middle of the joint, complete a circumferential wrap and continue wrapping towards the pipe on one side and then repeat on the other side.

Smooth out all air pockets and wrinkles.

On each side of the joint or fitting the tape shall extend along 150mm of the barrel of the pipe



1. SURFACE PREPARATION

Clean the joint and adjacent pipe thoroughly so that they are free from loose scale, rust, dirt etc.

Ensure the joint and adjacent pipe are as dry as possible before the application of the system.



2. METHOD OF APPLICATION

Using a brush apply Denso Primer D™ to the joint and surrounding pipe making sure all surfaces are covered with a thin continuous coating. Allow to dry.



3. DENSO PROFILING MASTIC

Once the primer is touch dry apply Denso™ Profiling Mastic, working into all hollows and voids to create a smooth contour for tape wrapping.



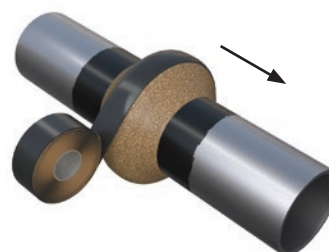
4. DENSOCLAD TAPE

Next spirally wrap Densoclad™ with tension making sure a 55% overlap is achieved which ensures a double wrap at all areas. Be sure to start from the middle of the joint, complete a circumferential wrap and continue wrapping towards the pipe on one side and then repeat on the other side.

Smooth out all air pockets and wrinkles.

On each side of the joint or fitting the tape shall extend along 150mm of the barrel of the pipe

A.

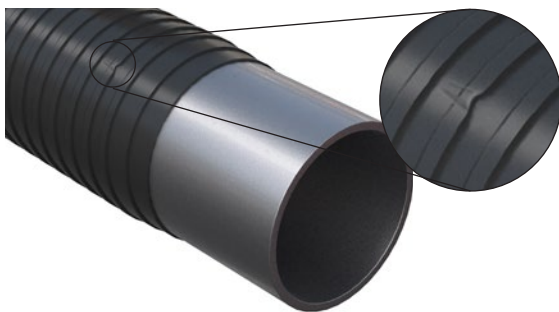


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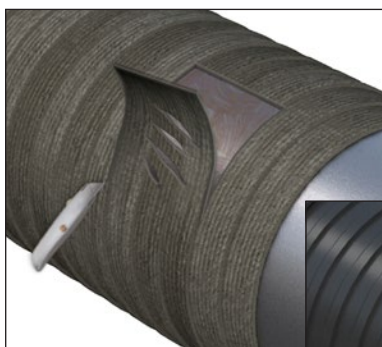
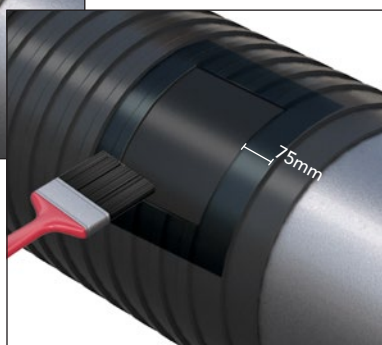


P1 & P2 SYSTEM INSPECTION

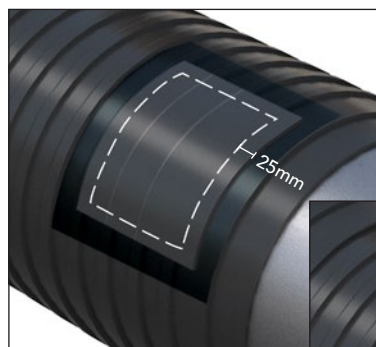
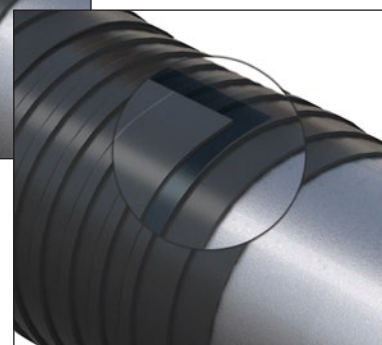
Ensure that the entire surface is covered with no gaps or air pockets (Fig. 4). Ensure the correct overlap is achieved. **P1** – Denso Tape cannot be holiday tested due to soft surface. **P2** – Holiday test at 10kV (Fig. 5).

FIG. 4**FIG. 5****P1 SYSTEM COATING REPAIRS**

Cut away and remove loose coating from the damaged area and smooth edges (Fig. 6). Prime the exposed metal. For thick coatings, build up the depression with patches of tape or Denso Profiling Mastic. Wrap the section of pipe continuing at least 50mm either side of the damaged area.

**FIG. 6****FIG. 7****P2 SYSTEM COATING REPAIRS**

Cut away and remove loose coating from the damaged area and smooth or chamfer edges (Fig. 6). Prime the exposed metal and surrounding coating extending 75mm either side of the damage (Fig. 7). Build up the damaged area with patch(es) of tape that overlap at least 25mm onto sound coating (Fig. 8). Overwrap the patch(es) with tape (Fig. 9).

**FIG. 8****FIG. 9****IMPORTANT:**

Winn & Coales (Denso) Ltd pursue a policy to develop and continually improve all of our products and therefore information given in this data sheet is intended as a general guide and does not constitute a warranty, specification or risk assessment. These guidelines may not cover all circumstances; however, our sales personnel are committed to assisting the user in establishing the suitability of the product for its intended purpose and additional specific information, including Safety Data Sheets, is available on request. We recommend that installation is carried out with due regard to Health and Safety and in accordance with relevant local statutes and regulations. Any conflict between these guidelines and the specific project specifications must be resolved by the user before work commences. All rights reserved.