

DENSO™ PETROLATUM, BITUMEN & BUTYL TAPES AND PROTAL™ LIQUID COATINGS

LONG TERM CORROSION PREVENTION FOR BURIED STEEL PIPELINES, FITTINGS & SPECIALS



Denso™ Tape Wrapping Systems

Introduction

Denso's world-wide reputation as a leading manufacturer and supplier of totally effective pipeline protection systems has been earned by more than 85 years of successful case history performance.

A range of products is offered for selection to suit specific project needs involving different soil and backfill conditions, varying surface cleaning standards as well as sub-zero and high temperature application and pipe operating temperatures.

For all buried pipeline projects, steel surface preparation standards are normally divided into two main categories:

Low Quality: Low quality surface preparation by hand power tools that will require surface tolerant coating systems.

High Quality: Dry abrasive blast cleaning to a high quality near white finish standard.



Customer Peace of Mind

Free advice for correct material selection, surface preparation and coating application criteria, is provided by qualified professionals at either Denso or their appointed agents.

Main Advantages of the Denso Tape Coating Systems

Dry abrasive blast cleaning to a high quality standard is not essential. Densoclad, Densopol and Denso Butyl tape systems as well as Denso Tape petrolatum systems are surface tolerant and are suitable for application despite a low quality surface preparation standard.

- Minimum controlled coating thickness as all tapes are factory regulated
- No delays immediate mechanical and corrosion protection is obtained
- Excellent cathodic disbonding resistance
- Tapes can all be applied by hand or by hand wrapping machine

Densoclad™, Densopol™ and Denso Butyl™ Systems

Densoclad™ and Densopol™ Systems

Thick PVC backed Densoclad and Densopol bitumen tapes are used in conjunction with a primer and can be applied with a 55% overlap to achieve double thickness in one operation. Temperate and Tropical grades are available to suit all site conditions.

Denso™ Butyl Systems

Thinner polyethylene backed Denso Butyl Tapes are also used in conjunction with a primer and are particularly suited for long-line projects for very fast automatic machine application alongside or over the ditch. A separate outerwrap is normally applied at the same time. Standard temperature and high temperature grades are also available.











Denso™ Tape Wrapping Systems

Denso™ Tape Petrolatum Systems

Based on petrolatum, Denso Tape is suited for all types of pipe and is normally used in conjunction with Denso Priming Paste. For profiling flanges, couplings, valves and spigot joints there is a choice of either a standard Densyl Mastic or a light weight, low density Denso Profiling Mastic.

To complete the system there are various outer wraps that can be utilised subject to the mechanical protection required, e.g. Denso Self-Adhesive PVC Tape, Denso PVC Bitumen Tape or Denso Glass Outerwrap.

Denso Tape is also available in a low temperature (L.T.) grade and a marine grade for the protection of jetty piles.

Our Denso Hotline Tape is also available for higher service temperatures.

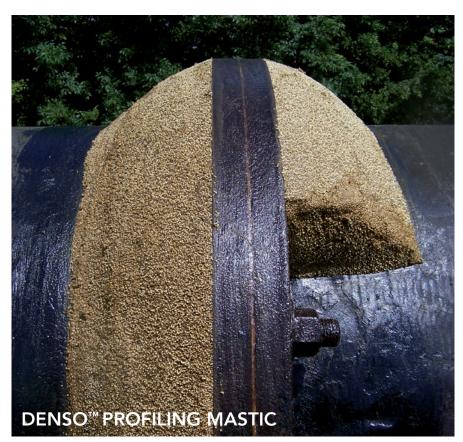




Denso Mastics

- Quick and easy to apply
- Conforms, fills and seals all awkward shapes and void areas
- Non-drying
- Non-shrinking





Denso[™] Tape Wrapping Machinery

A comprehensive range of tape wrapping machines are available to enable fast and consistent high quality application. Use of the machines ensures consistent tension and accurate overlap of the tape at all times.

Main Features:

- Hand powered versions available
- Consistent tape tension always achieved
- Accurate tape overlap always achieved
- Automatic removal and gathering of tape interleaving
- Fast application









Protal™ Pipeline Coatings

A range of epoxy coatings designed for application to abrasive blast cleaned steel pipe, welds, tie-ins, fittings etc.

Main Features:

- High build achieved in only one coating operation
- Very fast curing liquid applied coatings
- Designed for the external protection of all line-pipe, fittings, specials and storage vessels
- Excellent cathodic disbonding resistance
- Standard high quality abrasive blast cleaning surface preparation
- Can be applied by either brush, roller or spray methods
- Protal Repair Cartridge Kits with a dispensing gun are available in all Protal grades.
 Economical with minimal wastage - very quick and easy to apply









Protal™ Liquid Coating Systems

Protal[™] Cartridges

Coating & Repair

Conveniently sized cartridges for Protal products.

Denso provide cartridges in a range of sizes from 50ml to 1000ml. To be used for spray applications or repairs.



Protal ARO™

Abrasion Resistant Pipeline Coating

A VOC free, 100% solids liquid epoxy coating formulated to be applied over FBE as an ARO 3:1 ratio coating.

Used to protect FBE mainline coatings.



Protal™ Pipeline Coatings

Protal 7125™

Fast Cure, Low Temperature Pipeline Coating - Winter Grade

A low temperature coating that can cure at -20°C (-4°F). The coating can be backfilled in 30 minutes at 10°C (50°F).

Used for girth welds, tie-ins, rehabilitation, repairs to FBE and sacrificial coating to FBE.



Protal 7200™

High Build, Fast Cure Pipeline Coating

A fast cure one coat epoxy coating that can be hand or spray applied to girth welds, tie-ins, fittings and rehabilitation of existing pipelines.

Exhibits excellent cathodic disbondment properties at 95°C (200°F).







Protal™ Pipeline Coatings



Protal 7300™

Coating For Damp Steel Surfaces

A VOC free, 100% solids high build epoxy liquid coating with excellent adhesion qualities that can be applied by applicator pad, brush or roller in one coat to suitably prepared substrates.

A useful solution for the exterior coating of pipelines, structures or other steel surfaces that may be wet or damp due to the environment or as a result of atmospheric condensation.

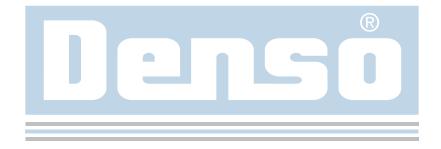


Protal 7900™

High Temperature Pipeline Coating

A high build epoxy coating that can be hand applied to girth welds, tie-ins, fittings and rehabilitation of existing pipelines.

Maximum operating temperature up to 120°C (250°F).



Winn & Coales International Ltd

BRINGING QUALITY AND INNOVATION FROM 1883 INTO THE 21st CENTURY

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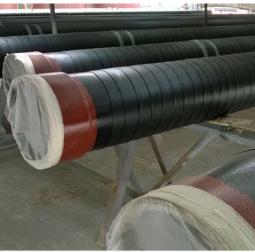
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