



# STEELCOAT™

SURFACE TOLERANT SYSTEMS FOR EXPOSED AND ABOVE GROUND STEEL PIPEWORK AND STRUCTURES

**SUITABLE FOR:**

- Steel structures
- Exposed Steelwork
- Exposed Pipelines
- Cables
- Tanks
- Chemical Plants
- Power Plants
- Oil Refineries
- Rigs





# SELECTION GUIDE

| SURFACE PREPARATION   | PROTECTING  | STEELCOAT™ SYSTEM  | EXPECTED SERVICE LIFE (YEARS)  | AVERAGE THICKNESS (MICRONS)        |
|---|---|--|--|------------------------------------|
| Minimal surface preparation, chipping hammers, hand wire brushing   | Cold/damp pipes<br>Badly rusted/pitted pipes and structural steelwork<br>Fittings<br>Pitted pipelines<br>Tank bases<br>Column bases   | 100/ SeaShield Primer  | 15   | 1400                               |
|   |   | 100/ HT Primer   | 15   | 1400                               |
|   |   | 100/500 (combined)   | 30   | 3000                               |
|   |   | 100/400 (combined)   | 30   | 2800                               |
|   |   | Tank Base Protection System  | 30   | 2800                               |
|   |   | Column Base Protection System  | 30   | 2800                               |
| Hand or power tool to St2 / St3 (ISO 8501-1) or high pressure water jetting (ISO 8501-4)<br><br>Alternative:<br>SSPC-SP2<br>Hand Tool Cleaning<br>SSPC-SP3<br>Power Tool Cleaning | Process plant<br>Pipe bridges<br>Structural steel<br>Pipework<br>Fittings<br>Pipelines<br>Tie bars<br>Storage tank bases<br>Metal roof purlins<br>Hot pipework<br>Soil air interface pipework | 700  | 7-9  | 4-500                              |
|   |   | 500  | 30   | 1600                               |
|   |   | 400 and 400/D5   | 30   | 1400/1600                          |
|   |   | 300  | 15   | 2500 (55% overlap)                 |
|   |   | 200  | 15   | 2300 (55% overlap)                 |
|   |   | Soil Air Interface System  | 30   | 2800                               |
|   |   | Dry Abrasive Blast Sa2½ (ISO 8501-1) with an angular surface profile of 50 to 125 microns<br><br>Alternative:<br>SSPC SP-10,<br>NACE No. 2 | Steel structures<br>Rigs<br>New jetty piles<br>Decking<br>Walkways<br>Ramps<br>Loading installations<br>Very hot pipes<br>Plant<br>Tanks<br>Pipelines<br>Cranes<br>Bridges | 1000                               |
| 1000  | 15-25   |  |  | 1000                               |
| 700   | 12-15   |  |  | 4-500                              |
| 50  | 50+   |  |  | Sleeve/anchorage completely filled |
|   |   |  |  |                                    |
| No surface preparation  | Pre-stressing and post-tensioning bridge cables and anchorages  |  |  | 50                                 |

The above Surface Preparation requirements are indicative only. Refer to Instructions for Use and Project Specifications.

**NOTE:** ISO Standards are not exact equivalents to NACE / SSPC.



## A VAST RANGE OF SYSTEMS FOR APPLICATION TO EXPOSED STEEL PIPEWORK AND STRUCTURES IN HIGHLY CORROSIVE ENVIRONMENTS

Steelcoat™ systems provide a cost-effective, long-term solution to corrosion on exposed steel surfaces, including soil air interface pipework, pipebridges and the bases of aboveground storage tanks and structural support columns.

Based on either glass flake reinforced liquid coatings or self-amalgamating tapes, mastics and void fillers, Steelcoat systems are designed to tolerate less than perfectly prepared metal surfaces. VOC compliant and environmentally responsible, the systems offer a safe and economical solution for steelwork in highly corrosive environments.

Many of the Steelcoat systems require minimal surface preparation of the steel substrate; often, surfaces only require hand wire brushing or hand tool cleaning to remove loose scale, rust or flaking coatings. Once correctly applied, Steelcoat systems efficiently protect vital assets and can provide up to 30-years maintenance free service life.



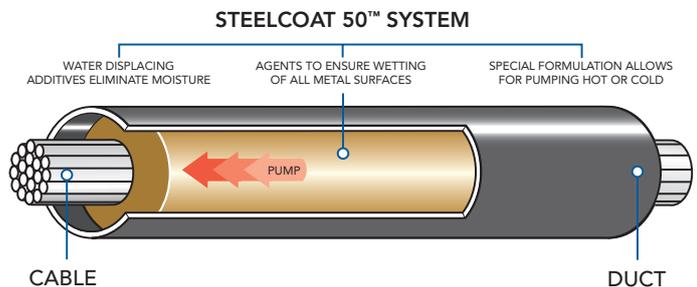
## STEELCOAT 50™ SYSTEM

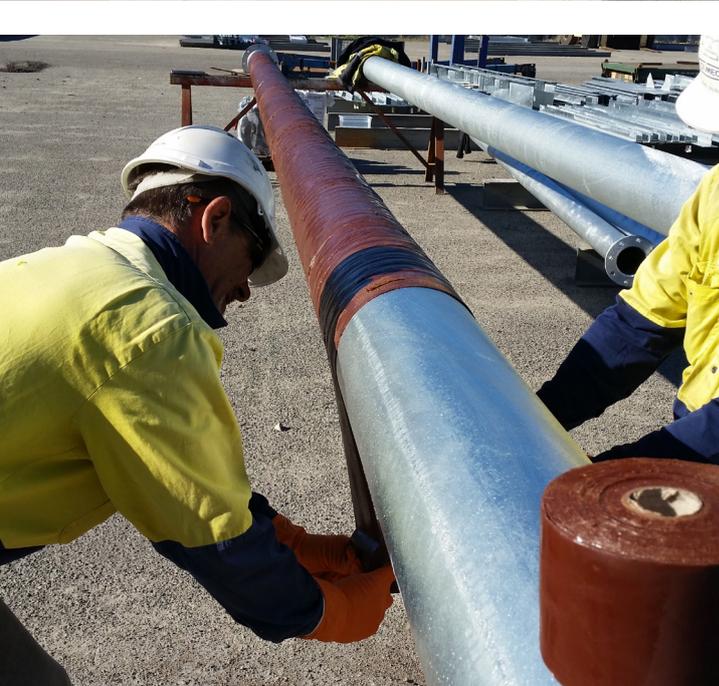
(OR DENSO VOID FILLER™ TYPE 1)

The Steelcoat 50™ System is a specially formulated petrolatum compound that can be pumped hot or cold. The compound completely fills the space between tendons, cables or ducts where it forms a semi-solid paste encapsulating the cable.

Non-cracking, lightweight, and allowing the easy removal of the protected tendon for inspection or replacement, Steelcoat 50 makes a sensible alternative to traditional cement mortar grout.

- Hot or cold applied
- Completely fills the void stopping corrosion
- Non cracking and lightweight
- A good alternative to traditional cement mortar grout





## STEELCOAT 100™ SYSTEM

The Steelcoat 100™ System comprises an adhesive petrolatum primer (Denso Hi-Tack™ Primer), an optional petrolatum paste compatible with damp surfaces (Denso SeaShield™ Primer) and a very adhesive petrolatum tape (Denso Hi-Tack™ Tape). For pitted or badly rusted structural steel and pipework applications, a petrolatum mastic is used to seal voids and fittings (Denso Profiling Mastic™).

A polyurethane membrane (Denso Single-Pack Elastomeric Membrane) cures to form a tough, flexible membrane and seals the system.

- Cold applied
- Surface tolerant
- Useful for damp/low temperature surfaces
- Useful for pitted or badly rusted surfaces
- Minimum surface preparation needed – hand tool cleaning only
- Can be applied by hand

## STEELCOAT 200™ SYSTEM

The Steelcoat 200™ System comprises a polymer backed petrolatum tape (Denso Hotline™ Tape) and a high temperature mastic for sealing fittings in awkward shapes (Densoseal 16A™). The system is designed to protect pipes that run at high temperatures, up to 110°C maximum (83°C if buried). No primer is required.

- Cold applied
- For service temperatures up to 110°C maximum
- Surface tolerant
- Minimum surface preparation needed – hand tool cleaning only
- Can be applied by hand or wrapping machine

## STEELCOAT 300™ SYSTEM (\*NOT AVAILABLE IN AUSTRALIA)

(OR DENSO COLOURTAPE™)

The Steelcoat 300™ System comprises a grey petrolatum tape (Denso ColourTape™) which is ideally suited for small to medium diameter pipes. No primer is necessary and application by hand or wrapping machine is quick and easy.

- Cold applied
- Surface tolerant
- Exceptionally conformable
- Controlled thickness
- Minimum surface preparation needed – hand tool cleaning only
- Can be applied by hand or wrapping machine

## STEELCOAT 400™ SYSTEM

The Steelcoat 400™ System, ideal for badly pitted or rusted steel structures, comprises a bitumen primer (Denso Primer D™), a fabric backed tape (Denso Ultraseal™ Tape) and a topcoat (Denso Acrylic Topcoat™). After priming, Denso Bitumen Mastic™ is used to seal and profile back to back angles, voids, flanges or fittings. The final topcoat can also be reinforced with a selected reinforcing scrim (Denso D5™ Scrim) for sections of steelwork or pipework requiring additional impact resistance.

- Cold applied
- Surface tolerant
- Highly conformable
- Proven performance
- Minimum surface preparation needed – hand/power tool cleaning only
- Easily repaired and over-coated
- Low future maintenance costs



## STEELCOAT 100/400™ SYSTEM

The Steelcoat 100/400™ System is now widely specified due to the superior protection it provides by combining the strengths of the Steelcoat 100™ and Steelcoat 400™ system components. The system comes in two variations: A and B.

### DENSO STEELCOAT 100/400(A) SYSTEM:

For badly pitted and rusted pipework and structural steelwork. For pipework, Steelcoat 100/400(A) System comprises Denso Hi-Tack™ Primer followed by a double wrap (55% overlap) of Denso Hi-Tack™ Tape. For pitted or badly rusted applications, a petrolatum mastic is used to seal voids and fittings (Denso Profiling Mastic™). The outer Denso Ultraseal RT™ Tape is applied with a 55% overlap before painting. For steelwork, the Steelcoat 100/400(A) System is applied as above with both tapes featuring a 55% overlap before painting.

Once applied the fabric backed Denso Ultraseal RT Tape is overpainted with two coats of Denso Acrylic Topcoat™.

### DENSO STEELCOAT 100/400(B) SYSTEM:

For damp/sweating pipework surfaces. As above 'For pipework' with Denso SeaShield™ Primer replacing the Denso Hi-Tack™ Primer.

- Cold applied
- Surface tolerant
- Minimum surface preparation needed – hand tool cleaning only
- Highly conformable
- Ideal for badly pitted and rusted steelwork
- Ideal for damp or humid steelwork
- If applied in the recommended way it will have a 30-year expected service life.





## STEELCOAT 500™ SYSTEM

(\*NOT AVAILABLE IN AUSTRALIA)

The Steelcoat 500™ System comprises a deep penetrating primer (Denso Penetrating Primer™) and a tough acrylic backing laminated to a thick rubber bitumen adhesive compound (Denso™ Acrylic Tape). The tape can be applied by hand or machine wrapping to pipe lengths.

- Cold applied
- Surface tolerant
- Minimum surface preparation needed – hand tool cleaning only



## STEELCOAT 700™ SYSTEM\*

The Steelcoat 700™ System is ideal for exposed steelwork and pipework wherever steel grit blasting is not possible. It comprises a two part glass flake reinforced epoxy mastic coating (Denso ST Epoxy™). A minimum of two coats is easily applied by brush or airless spray.

When exposed to ultraviolet light a third coat of Urethane based material (Archco 65™ Topcoat) is applied for extra protection (prevents chalking).

- Requires minimal surface preparation (SSPC-SP2/3)
- Provides long term exterior protection
- Excellent water/sea water resistance
- Good resistance to impacts, acids and alkalis
- Good flexibility, hardness and adhesion
- Low VOC

\*Not available for sale in the UK or EU.



## STEELCOAT 1000™ SYSTEM

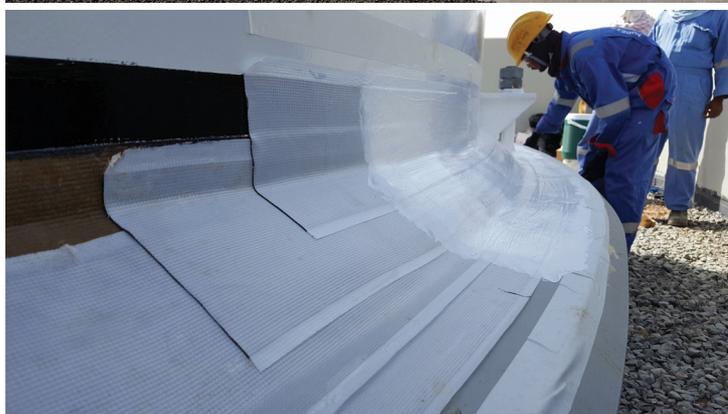
The Steelcoat 1000™ System comprises a two component reinforced polyester glass flake coating (Denso Rigspray™), applied by airless spray, that offers outstanding resistance to corrosion and abrasion. For protecting structural steel in aggressive environments such as bridges, lock gates or marine applications, and where abrasion and erosion are prevalent at temperatures up to 65°C. For improved service life two coats are applied at 750 microns per coat.

- Excellent corrosion and undercutting resistance
- Very good abrasion and erosion resistance
- Very low permeability
- Good chemical resistance
- Excellent application properties
- Single coat application up to 1 mm D.F.T.
- Fast cure time
- Excellent reparability

## STEELCOAT™ TANK BASE PROTECTION SYSTEM

The Steelcoat™ Tank Base Protection System is a combined tape and liquid coating system designed for the protection of the external base area of aboveground steel storage tanks (AST).

- Encapsulates the circumference of the tank base with a tough, highly weather resistant seal
- Remains flexible with cyclic movement caused by emptying and filling the tank
- Easy to apply with no need for excavation, lifting, blast cleaning or other disruption
- Rapid installation, no delay for curing
- Long-lasting & cost effective
- Can be applied to new and existing tanks
- Subject to operating temperatures, the system is suitable for use on all ASTs, including those with slab or ringwall foundations



## STEELCOAT™ COLUMN BASE PROTECTION SYSTEM

A surface tolerant system designed to protect column bases in corrosive environments. The system comprises Denso Hi-Tack™ Primer, Denso Profiling Mastic™ to fill voids and to build up angles required to create a smooth profile, Denso Hi-Tack™ Tape and Denso D5™ Scrim. A coat of Denso Basecoat™ is applied to complete the protective system. An optional acrylic topcoat is available.

- Cold applied
- Hand applied
- Flexible and mouldable for awkward shapes and angles
- Long-term protection

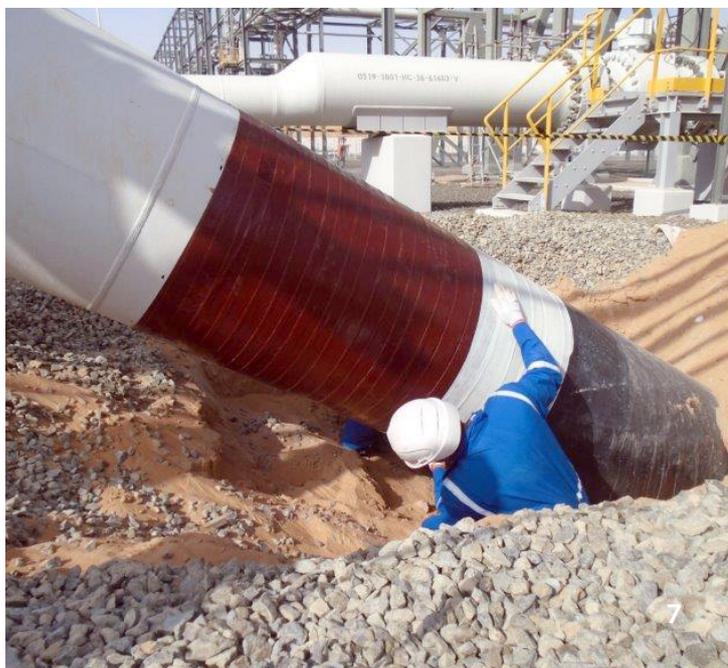


## STEELCOAT™ SOIL AIR INTERFACE SYSTEM

The Steelcoat™ Soil Air Interface System is used to protect the section of pipe that rises from below to above ground in elevated temperatures. A section of at least 500 mm above and 500 mm below ground should be protected.

The system comprises Denso Hotline™ Tape and Denso Glass Outerwrap™, both wrapped with a 55% overlap (cured underneath a layer of compression film that is removed post-curing) and finished with a coating of Archco 65™ Topcoat.

- Provides tough Denso protection to the vulnerable area above and below ground from corrosion





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## DENSO (AUSTRALIA) PTY LTD

TEL: +61 (03) 9356 7600  
FAX: +61 (03) 9356 7699  
EMAIL: [denso@densoaustralia.com.au](mailto:denso@densoaustralia.com.au)  
WEB: [www.densoaustralia.com.au](http://www.densoaustralia.com.au)

77-95 National Boulevard  
Campbellfield,  
Victoria 3061  
**AUSTRALIA**



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