



Volume 30 - Number 3

Internal and external Denso protection for water pipeline in Fiji - see story pages 6-7.

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LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

# Densoclad System Protects Dow Corning Chemicals Process Pipes

Blastpride (Holdings) Ltd of Cardiff have protected thirty pipe lengths for a UK Dow Corning Chemicals plant, with a Densoclad Tape system. The 20" diameter pipe lengths, which will be buried, are a mixture of six and eight metre lengths.

The pipes were first abrasive blast cleaned to Sa2½ 50-75 profile and then spray coated with Denso Primer D. This was then followed by the application of Densoclad 50 Tape followed by a Denso PVC Outerwrap all applied by wrapping machine.

Densoclad Tape is specifically designed to give maximum corrosion protection to buried or

## Project Summary

**Product type:**  
Buried Steel Coating

<b>Country:</b>	United Kingdom
<b>Object:</b>	Pipe lengths
<b>Problem:</b>	Corrosion prevention
<b>Product solution:</b>	Densoclad 50 Tape & Denso SA PVC Tape

For quick identification of the relevant product type used in each story we have used the following colour codes:

### Protective coatings for.....

	BURIED PIPELINES & LPG VESSELS
	EXPOSED STEEL & PIPEWORK
	SUB SEA PIPELINES & JETTY PILES

### Protective linings for.....

	STORAGE TANKS, PUMPS ETC
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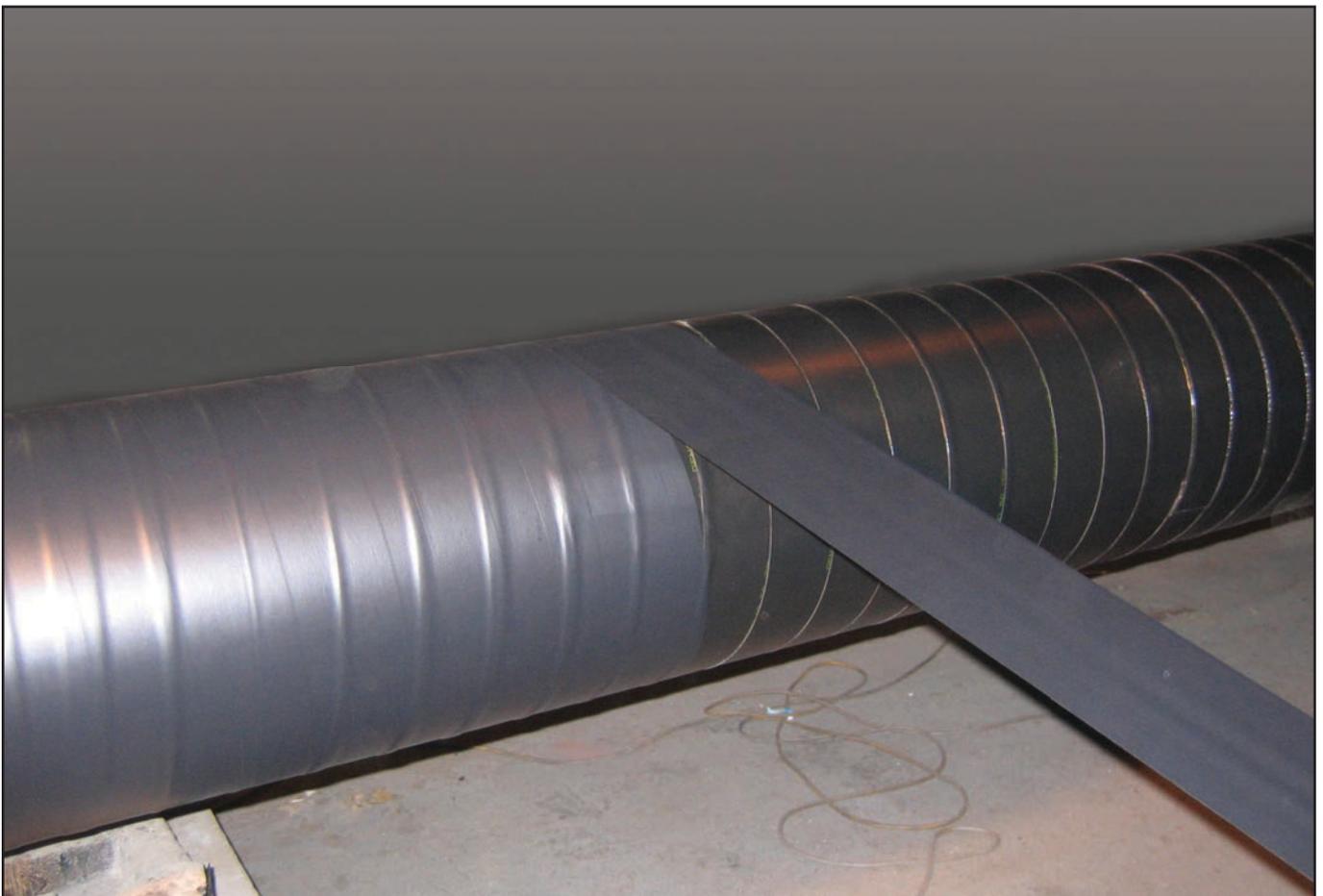
### Sealing & waterproofing.....

	SEALING MASTICS
	MEMBRANES & FLASHINGS
	INDUSTRIAL TAPES

immersed pipes and fittings and has outstanding resistance to cathodic disbonding.

Once the Denso protection was complete the pipe lengths were taken to the appropriate location and installed.

The six and eight metre pipe lengths were machine wrapped with both tapes. Shown below is the final Denso PVC Outerwrap being applied.





LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

# Denso Petrolatum System Protects High Pressure Petroleum Lines

Suncor Energy is a Canadian integrated energy company that is involved in the Canadian oil sands. Suncor also has complementary operations in the refining and marketing of North American natural gas as well as conventional oil production. This involvement consists of operations both internationally and domestically, including offshore on the East Coast of Canada.

## Project Summary

**Product type:**  
Buried Steel Coating

**Country:** Canada  
**Location:** Southern Ontario  
**Object:** Oil pipeline valves  
**Problem:** Corrosion Prevention  
**Product solution:** Denso Petrolatum Tape System

After applying Denso Paste, Denso Profiling Mastic is used to fill voids and smooth all irregular contours ready for wrapping with Denso LT Petrolatum Tape





LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY



A final wrap of Denso LT Petrolatum tape to finish the job - note the flexibility of the tape and ease of wrapping over awkward shapes.

Sun-Canadian Pipelines is a Suncor Energy and Shell Canada joint venture that transports and delivers refined petroleum products throughout southern Ontario.

Recently, Sun-Canadian undertook a large valve rehabilitation project that involved the sandblasting of all remaining epoxy coating on

each valve and the application of the Denso Petrolatum System. This was a totally new experience for Sun-Canadian as they had always used some type of coal-tar epoxy coating to protect their valves in the past.

After many years of constant maintenance and repainting, Sun-Canadian finally realized what many refining companies

around the world have known for years, utilize Denso Petrolatum Paste, Denso Profiling Mastic and Denso LT Petrolatum Tape and be free of continuous, expensive maintenance forever.



LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

## Internal and External Denso Protection for Water Pipes in Fiji Nadarivatu Renewable Energy Project (Sinohydro)



Internal surfaces of the water pipes were coated with Denso S.T. Epoxy.



The new hydroelectricity station under construction.





## LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

**Picturesque Fiji blessed with 332 magnificent islands, most with beautiful sandy white beaches, swaying coconut trees and pristine oceans is the scene for one of Denso Australia's most recent projects.**

Far from the white sandy beaches in the green lush highlands, the Fijian government is building a hydroelectricity station for which Denso provided products. External and internal coating products were supplied to protect the 1.6km (made up of 2250mmØ & 1600mmØ) fresh water pipe.

The pipe was grit blasted to Sa2½ (with a blast profile of 50 - 70µm) externally and internally, the internals having a minimum blast profile of 65µm which was strictly adhered to. The first

application was to stripe coat all weld seams using light grey

Denso S.T. Epoxy (which has Potable Water Approval to AS/NZ 4020). This was followed by a full coat of the S.T. Epoxy at DFT of 250µm and allowed to cure. The second application was another stripe coat to all the weld seams and then a further full coat of the S.T. Epoxy in white at a minimum of 250µm DFT, achieving a total DFT of 500 - 600µm.

The external of the pipe was then coated with Primer D that was roller applied to a 50µm DFT

Project Summary	
Product type: Buried Steel Coating	
<b>Country:</b>	Fiji
<b>Location:</b>	Not specified
<b>Object:</b>	Fresh water pipeline
<b>Problem:</b>	Corrosion Prevention
<b>Product</b>	Denso S.T. Epoxy
<b>solution:</b>	Densopol 80 HT Tape

then wrapped with Densopol 80 HT Tape with a 55% overlap. Training and Inspection visits have been carried out by Denso on 3 separate occasions and we can report the project is going well and our products are certainly looking sensational!

Below: External surfaces of the pipe were wrapped with Densopol 80 HT Tape.





LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

## University of Houston's New Cooling Tower Protected with Denso Petrolatum Tape System

The University of Houston, located in Houston, Texas, is one of the largest Universities in the United States with approx. 40,000 current students. To keep the students cool in the hot Houston weather, a well maintained air-conditioning system is paramount.

Denso Paste S105, Profiling Mastic and Densyl Tape applied to all flanges and valves.

For almost 30 years, the main cooling tower at the University has been protected with the Denso Petrolatum Tape system. Recently, a brand new state-of-the-art Cooling Tower System was built. Due to the tremendous success in corrosion prevention that the Denso materials provided on the older system, the University decided to protect all the piping for the new cooling tower with Denso materials as well.





LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY



Above: Denso Paste S105 and Densyl Tape applied to all straight pipe and bends.

Opposite: Denso Petrolatum Tape System applied 30 years ago to the old cooling tower and still performing well.

FGH Insulation was the contractor who performed the installation. The project was completed in phases during the 1-year construction of the large cooling tower system. Application included the protection of approx. 3,200 SF of 12", 18" and 36" pipe, flanges and valves. The scope of the work included hand tool cleaning the surface, application of a thin layer of Denso Paste S105 and a double layer of Densyl Tape to all exposed steel pipe in the cooling tower system. All flanges and valves included the application of Denso Profiling Mastic as well.

The University's maintenance engineers will rest assured that their new cooling tower system will be corrosion free for many years to come.





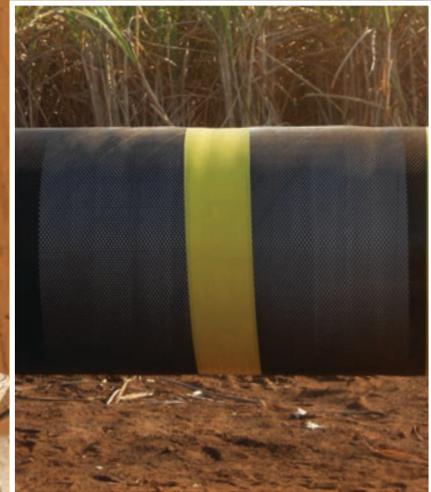
LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

# Denso Protection is Specified for Transnet's New Multi Product Pipeline



Corroklad inner and outerwrap tape was used on some of the bends.

Denso Stoneguard gives ample protection against abrasive backfill.



Picture showing work in progress during the project.



LEADERS IN CORROSION PREVENTION & SEALING TECHNOLOGY

**The Transnet Multi Product Pipeline that crosses 555km of South African terrain, required protection for thousands of buried field joints.**

After due consideration Denso were awarded the contract for the joint protection on this project using the following product specification:

- Denso Protal 7200 applied at 1200 $\mu$ m DFT
- Denso Primer D
- Corroklad LDP 075 Innerwrap
- Corroklad MDP 032 Outerwrap
- Denso Stoneguard 1200

A Denso Protal 7200 protected pipe bend in position.



Some pipe bends were coated with the Denso Protal 7200.

This was the largest project Denso South Africa have been involved with to-date and it spanned over a period of approximately 2 years.



#### Project Summary

**Product type:**  
Buried Steel Coating

**Country:** South Africa  
**Location:** Not specified  
**Object:** Multi product pipeline  
**Problem:** Corrosion Prevention  
**Product solution:** Denso Protal 7200  
 Corroklad LDP 075  
 Corroklad MDP 032  
 Denso Stoneguard



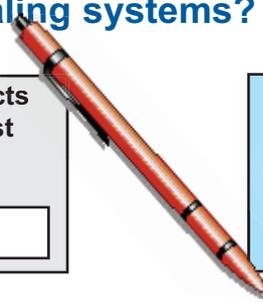
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## Would you like more information about our long-term corrosion prevention and sealing systems?

If you are interested in any of the products featured in this issue of the Denso Digest please tick box:

Please indicate page number(s):



We also offer tried and tested systems to deal with all the problem areas listed below, simply fax back this completed page and we will supply you with more information.

### BURIED ONSHORE COATINGS

- External corrosion prevention for underground pipelines, welded joints, valves and fittings.
- Protection of mounded LPG vessels and fuel tanks.

### EXPOSED SURFACE COATINGS

- Corrosion prevention for chemical plant, structural steelwork, above ground pipes, storage tanks, offshore rigs, bridges and support cables, cranes and pipe bridges.
- Corrosion prevention for metal roof purlins and metal roof sheets.
- Protecting pre-stressing and post tensioning bridge cables and ground anchorages.

### SUB SEA/SPLASH ZONE COATINGS

- Maintenance corrosion protection for steel jetty piles.
- Subsea pipelines and outfalls.
- Protection of timber and concrete piling.

### INDUSTRIAL LININGS

- Internal linings for tanks, pumps, vessels and pipelines.
- Linings for concrete bunds and floors.
- External abrasive wear protection

### MEMBRANES & FLASHINGS

- Tanking / waterproofing.
- Exposed rooftops and parapets.

### SEALING MASTICS

- Joint sealing of precast concrete manholes and culverts.
- Joint and crack sealing of asphalt road surface wearing courses.
- Joint sealing for airport runways.
- Sealing of cable entry ducts.

### INDUSTRIAL TAPES

- Sealing and insulating
- Protecting and bonding

### DIY WEATHERPROOFING

- Waterproofing and flashing

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