

## LEADERS IN CORROSION PREVENTION AND SEALING TECHNOLOGY

## TECHNICAL DATA SHEET

OVER 130 YEARS SERVICE TO INDUSTRY



Document Reference: TDSRP3-1 Rev:02

## DENSO BUTYL S43HT / R23 TAPE SYSTEM

# SYSTEM DESCRIPTION

Denso Butyl S43HT / R23 Tape System is a specially developed system for spiral wrapping over externals of steel pipes for primary corrosion prevention.

The system comprises of:

- Denso Butyl Primer P16HT
- Denso Butyl Mastic Strip (where required)
- Denso S43HT 3ply PE / Butyl Rubber Self Amalgamating Innerwrap (55% overlap)
- Denso R23 2ply PE / Butyl Rubber Outerwrap (55% overlap)

The Denso S43HT /R23 System is designed for the corrosion prevention of pipeline, joints, welds, bends and fittings.

#### **ADVANTAGES**

- High Adhesion to Steel
- High Impermeability To Water Vapour And Oxygen
- Excellent Conformability
- High Resistance To Soil Bacteria And Soil Electrolyte
- Low Cost To Maintain
- Can Be used to Coat The Operating Pipeline
- High Compatibility With Existing Systems
- High Adhesion Between Layers

#### **CERTIFICATION**

This system is fully compliant to DIN EN 12068 Class C 50°c.

# SURFACE PREPERATION

Steel – ST2 / SSPC.SP2 (minimum) Edges should be chamfered to remove step down. Approx. 100mm of shop coating should be abraded and degreased either side of the joint.

## PRIMER

Denso Butyl Primer P16HT should be applied to the prepared surface at a rate of 6m<sup>2</sup>/lt and allowed to tack dry.

### **PROFILING**

Denso Butyl Mastic Strip should be used to contour weldbeads and step down on the shop coating (where applicable).

## INERWRAP

Denso S43HT Tape can be applied either by hand or the Densoman Wrapping Machine with a minimum overlap of 55% with the Grey Adhesive side applied onto the prepared surface.

### **OUTERWRAP**

Denso R23 Tape must be applied with the 55% overlap onto the Black outer adhesive surface of the S43HT innerwrap Tape.

#### **SAFETY**

Normal hygiene procedures. Wash hands thoroughly with soap and water or a proprietary hand-cleaner prior to eating. Launder contaminated clothing, gloves, etc.

#### **STORAGE**

Store in original containers in a cool, dry place away from and sources of ignition.

Wrapped pipe should not be left exposed to direct sunlight for longer than fourteen (14) days.

Head Office / Factory: 120 Malacca Road, Red Hill, Durban. P.O.Box 201259, Durban North, 4016, South Africa Tel: +27 (031) 569 4319 Fax: +27 (031) 569 4328 Email: bid@denso.co.za Website: www.denso.co.za



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## **DENSO BUTYL S43HT / R23 TAPE SYSTEM (Cont).**

TYPICAL PROPERTIES OF SYSTEM	CONDITIONS	TEST METHOD	DATA
Total Thickness			Approx 2.64 mm
Peel Strength			
To Pipe Surface	@ 23°C @ 50°C	DIN EN 12068 DIN EN 12068	≥1.7 N/mm ≥0.18 N/mm
Peel Strength			
Inner Layer – Inner Layer	@ 23°C @ 50°C	DIN EN 12068 DIN EN 12068	≥ 2 N/mm 0.3 N/mm
Peel Strength			
Outer Layer – Inner Layer	@ 23°C @ 50°C	DIN EN 12068 DIN EN 12068	≥ 2 N/mm ≥ 0.3 N/mm
Peel Strength			
Outer Layer – Outer Layer	@ 23°C @ 50°C	DIN EN 12068 DIN EN 12068	≥ 0.6 N/mm ≥ 0.21 N/mm
Peel Strength			
To Factory Coating PE	@ 23°C @ 50°C	DIN EN 12068 DIN EN 12068	≥ 1.2 N/mm ≥ 0.12 N/mm
Lap Shear Strength	@ 50°C	DIN EN 12068	≥ 0.065 N/mm²
Indentation Resistance	@ 50°C	DIN EN 12068	≥1 mm (Residual)
Impact Resistance	@ 23°C	DIN EN 12068	≥15 J
Cathodic Disbonding	@ 23°C @ 50°C	DIN EN 12068	≤ 15 mm ≤ 20 mm
Specific Electrical Resistance	@ 23°C	DIN EN 12068	$\geq 6 \times 10^{11} \Omega^2$

#### **Important**

Winn & Coales / Denso SA (Pty) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.

Denso SA (Pty) Ltd operate a Quality Management System registered to ISO 9001:2008.

Denso Butyl Tapes are made in Italy by ALTA ALTENE S.R.L

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