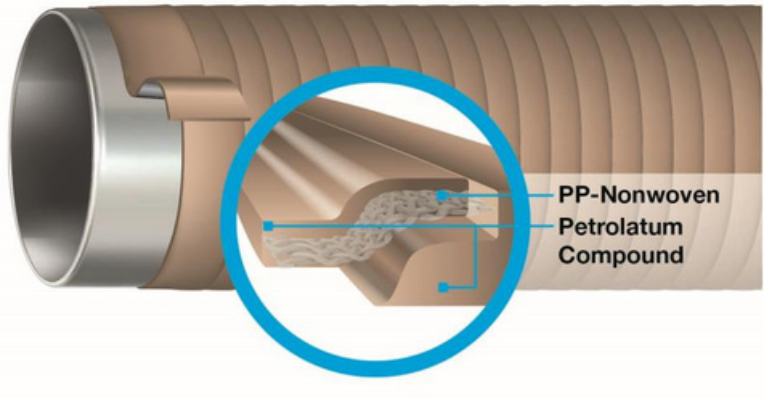
Denso®-Tec

Product information & application recommendation



Special advantages:

- For operating temperatures of -40°C (-40°F) to +35°C (+95°F).
- For temperatures of -40°C (-40°F) to +50°C (+122°F).
- High plasticity and flexibility.
- Electrically insulating and diffusion resistant.
- Ideally suitable for complex surfaces of pipeline components.

Plastic petrolatum tape for sealing and for corrosion prevention at metallic components, pipes and armatures with operating temperatures up to +35°C (+95°F).

For a century now, DENSO Group Germany has been representing experience, quality and reliability for corrosion prevention and sealing technology. The success of the internationally leading corporation is based on the development of the "DENSO-Tape", which was already patented in 1927 as the first product worldwide for the passive corrosion prevention of pipelines. Since then, the DENSO Group Germany has been establishing and guaranteeing the highest quality standards with technically trend-setting products. Research, development and production take place exclusively in Germany. Our employees continuously implement safe and individual solutions in a personal cooperation with the customer.

Description

DENSO®-Tec is a corrosion prevention tape that can be processed cold on the basis of petrolatum.

DENSO®-Tec consist of an impregnated polypropylene carrier nonwoven, which is coated on both sides with a corrosion prevention petrolatum mastic. The petrolatum mastic is stabilized by polymer additives, which means that it can be used at operating temperatures of -40°C (-40 °F) to +35°C (+95°F).

DENSO®-Tec is impermeable for water and highly resistant against hydrous electrolyte solution.

DENSO®-Tec is based on more than 90 years of experience of the DENSO Group Germany in the production of high quality corrosion prevention products on petrolatum basis.

DENSO®-Tec is used in many applications, e.g. as

- Corrosion prevention for structural metallic components in buildings and above ground systems.
- Corrosion prevention of metal parts or pipe systems inserted into concrete or screed.
- Galvanic separation layer for metallic constructions.
- Corrosion prevention of cooling lines or heat insulating insulations.

DENSO®-Tec will be wrapped as insulation layer at least with one layer and, as corrosion prevention encasement with 50% overlap, at least with two layers, or processed layer by layer with an adequate overlap.

An alternative corrosion prevention tape with a laminated PP film is available with **DENSO®-Plast** for buried pipelines, which provides an increased resistance against washing out, e.g. due to rising and falling groundwater.

DENSO®-Tape MT (+60°C, +140°F), **DENSO®-Feu** (+70°C, +158°F) and **DENSO®-Cal** (+110°C, +230°F) are additional corrosion prevention tapes with the proven DENSO quality for applications with higher temperature requirements.

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Typical product properties

Property	Unit	Typical value	Required value	Test method
Thickness	mm	app. 1.1	-	
Carrier	-	Polypropylene nonwoven	-	-
Specific electrical insulation resistance	Ω m^2	$\geq 10^7$	$\geq 10^6$	-
Drip resistance 48h, +50°C (+122°F)	-	No dripping	No dripping	EN 12068
Dripping point	°C (°F)	app. +60 (+140)	-	EN 12068
Low temperature unrolling test +5°C (+23°F)	-	passed	No separation, no crack development	EN 12068
Saponification value (petrolatum mastic)	mg (KOH) / g	≤10	<25	EN 12068
UV stability	-	good	-	-
Operating temperature	°C (°F)	-40 to +35 (-40 to +95)	-	-
For temperatures of	°C (°F)	-40 to +50 (-40 to +122)	-	-

Ordering information and packaging

Roll length 10 m

Width [mm]	Number of rolls per box	Tape length per box (m)	Tape surface per box (m²)	Weight per box app. [kg]
50	24	240	12	13,2
100	12	120	12	13,2
150	6	60	9	10,0
200	6	60	12	13,2

Additional dimensions available on request.

Storage

When stored in its original, unopened packaging, **DENSO®-Tec** can be stored for at least 60 months after the manufacturing date.
Storage temperature: ≤ +30°C (+86°F)
The product must be stored dry, without load on the front surface.

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Denso® Petrolatum tapes and mastics

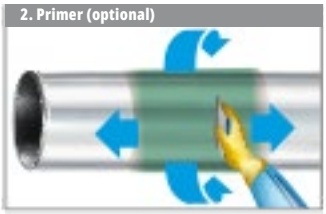
For Pipes/pipelines

1. Surface treatment



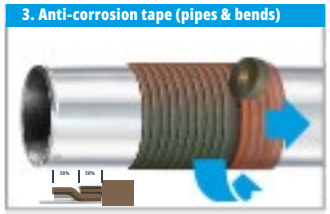
The surface must be free from dust and loose objects. Rust must be removed using a wire brush. Minimum degree of cleanliness (ISO 8501-1) St2.

2. Primer (optional)



Work DENSO® Primer into the surface thoroughly. Apply DENSO® Primer by hand or using a spatula to the surface to be coated.

3. Anti-corrosion tape (pipes & bends)



Wind DENSO® Petrolatum tape around the pipe with the required overlap and with no wrinkles. Then smooth down the DENSO® Petrolatum tape with your hand and press it firmly into position.

4. Mechanical protection



Coat the areas encased in DENSO® Petrolatum-tape with a layer of DEPROTEC®-DRM PP up to the transitional point with the factory-encased surface. Fix the pipe protection mat in the overlap area by applying the heat of a flame and pressing down immediately. For additional mechanical protection, DEPROTEC®-PUR glass fibre bandage can be used.

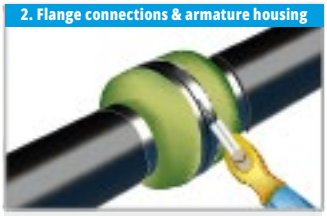
For armatures/flange connections

1. DENSO® Petrolatum mastics



Apply DENSO® Petrolatum mastics by hand or using a spatula in order to fill hollow spaces. Shape the mastic and then wind DENSO® Petrolatum-tape all the way around.

2. Flange connections & armature housing



Depending on the operating temperature, fill the hollow space from the crack between the flange plates with DENSO®-Jet or DENSO®-Fill.

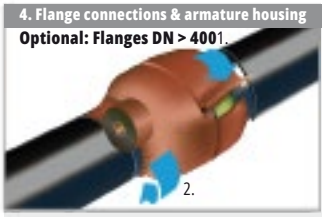
3. Flange connections & armature housing



Lay DENSO® Petrolatum tape centrally on the flange and shape it over the external circumference, screw heads, nuts etc. Tape width depends on the nominal size: 250, 300 or 400 mm

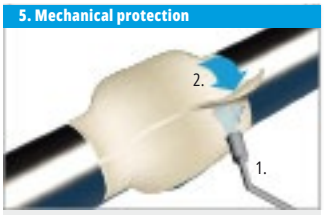
4. Flange connections & armature housing

Optional: Flanges DN > 400



Position 2 layers of DENSO® Petrolatum tape alternately on the right and left flange edge. The length of the DENSO® Petrolatum tape sections correspond to the external flange circumference plus 50 mm overlap. Cover the pipe surface adjacent to both sides of the flange with DENSO® Petrolatum tape in a sleeve formation or spiral pattern.

5. Mechanical protection



Coat the areas encased in DENSO® Petrolatum-tape with a layer of DEPROTEC®-DRM PP up to the transitional point with the factory-encased surface. Fix the pipe protection mat in the overlap area by applying the heat of a flame and pressing down immediately. For additional mechanical protection, DEPROTEC®-PUR glass fibre bandage can be used.

Processing temperature	Primer	
Product	DENSO®-AQ DENSO®-Cal	DENSO®-AQ Primer HT
Material °C (°F)	-10 to +50 (+14 to +122)	+5 to +50 (+41 to +122)
Surface °C (°F)	-10 to +50 (+14 to +122)	-10 to +100 (+14 to +212)

Processing temperature	Tape without lamination film						Tape with lamination film		Mastic		
Product	DENSO®-Feu	DENSO®-Tape ET	DENSO®-Tape MT[1]	DENSO®-Tape ST	DENSO®-Tape HT[3]	DENSO®-Tec DENSO®-Verte DENSO®-Tape LT[1]	DENSO®-Cal[2]	DENSO®-Flex DENSO®-Plast	DENSO®-PF	DENSO®-Plast	DENSO®-Fill/ -Jet (Cartridges)
Material °C (°F)	-10 to +40 (+14 to +104)	+5 to +55 (+41 to +131)	-10 to +50 (+14 to +122)	+5 to +45 (+41 to +113)	+5 to +50 (+41 to +122)	-10 to +30 (+14 to +86)	+5 to +50 (+41 to +122)	-10 to +30 (+14 to +86)	+0 to +30 (+32 to +86)	+4 to +30 (+39,2 to +86)	+40 to +85 (+104 to +185)
Surface °C (°F)	-20 to +50 (-4 to +122)	-10 to +60 (+14 to +140)	-20 to +50 (-4 to +122)	-20 to +40 (-4 to +104)	-10 to +100 (+14 to +212)	-10 to +30 (+14 to +86)	+40 to +110 (+104 to +230)	-10 to +30 (+14 to +86)	+0 to +30 (+32 to +86)	+0 to +30 (+32 to +86)	≥ +5 (≥ +41)

General	
Surface preparation	Use an abrasive cloth #40 in a peripheral direction to roughen adjacent work surfaces and chamfer at an angle of < 30°. Surface cleanliness: min. St2 (ISO 8501-1) dry and free from grease, dust etc.
Health, safety & environmental protection	The installation must take place in accordance with customary and local environmental and safety standards. The safety and environmental notes which accompany DENSO products must be heeded. Personal protective equipment such as safety glasses, safety gloves and fastened work garments must be worn.

1) Only for use with **DENSO®-AQ Primer**
2) At low temperatures **DENSO®-Cal Primer** can be used (surface -10 °C to +50 °C (+14 °F to +122 °F))
3) Only for use with **DENSO®-AQ Primer HT**

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