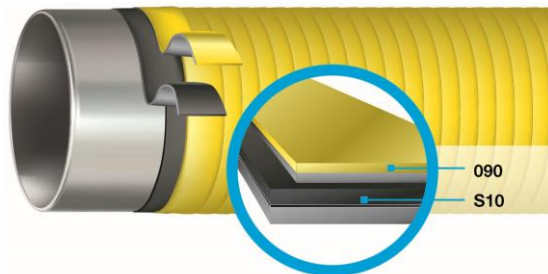


DENSOLEN®-S10/-090

Product information



Special advantages:

- ✓ Approval by GRTgaz (FR) for stress classes R and HR (RV02).
- ✓ For operating temperatures up to +50°C (+122°F).
- ✓ Compatible with factory coatings made of PE, PP, PUR, FBE and bitumen.
- ✓ Two-tape system for flanges, T-pieces and other moulded parts.

Two-tape system for the field-joint coating of pipelines and pipeline components.

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

DENSOLEN®-S10/-090 is a tape system for the permanent corrosion prevention of pipelines and pipeline components. The high flexibility and elasticity of **DENSOLEN®-S10** and **DENSOLEN®-090** permit a fast and safe application of the field-joint coating systems on the pipeline components, such as T-fittings and house connection valves. Depending on the number of tape layers of the outside tape, the stress classes R or HR of GRTgaz are achieved. Based on the modular design, this **DENSOLEN®** tape system can be used to establish the technically and eco-

nomically optimal system in accordance with the requirements of the construction project. **DENSOLEN®-S10/-090** has an approval by GRTgaz (France) for stress class R and HR in accordance with the specifications RV02 (certificate No. 70).



DENSOLEN®-S10 as an inside tape, fulfills essentially the corrosion prevention of the encasement system. **DENSOLEN®-S10** features an especially adaptable carrier film and a symmetrical butyl rubber coating on both sides. The butyl rubber layers grow completely together in the

overlapping area and create a durable and hose-type coating.

DENSOLEN®-090 is used as the outside tape in the encasement system and provides the mechanical protection for the inside tape. **DENSOLEN®-090** is a flexible two-layer tape with a polyethylene outside layer and an inside butyl rubber coating, which amalgamates with the outside layer of the inside tape. Both **DENSOLEN®** tapes can be processed efficiently with the **DENSOMAT®** wrapping devices.

Typical product properties

Property	Unit	DENSOLEN®-S10 Typical value	DENSOLEN®-090 Typical value	Test method
Carrier film color	-	Black	Yellow	-
Butyl adhesive color inside	-	Gray	Gray	-
Butyl adhesive color outside	-	Black	-	-
Tape thickness	mm	≥0.8	≥0.4	ISO 4591 ASTM D1000
Carrier film thickness app.	mm	≥0.14	≥0.26	
Inside adhesive layer thickness app.	mm	≥0.38	≥0.14	
Outside adhesive layer thickness app.	mm	≥0.28	-	
Elongation at brea	%	≥500	≥400	DIN 30672
Tape strength	N / cm	≥40	≥35	EN 12068

Property	Unit	Typical value		Required value		Test method	
Stress class	-	R	HR	R	HR	RV 02	
System design	Primer	DENSOLEN®-HT Primer		-	-	-	
	Inner tape	DENSOLEN®-S10 2 layer 2 layer		-	-	-	
	Outer tape	DENSOLEN®-090 1 layer 2 layer		-	-	-	
Total thickness	mm	≥2.0	≥2.4	-	-	-	
Specific electrical insulation resistance	Ohm m ²	≥ 10 ¹⁰	≥ 10 ¹⁰	≥10 ⁸	≥10 ⁸	EN 12068	
Peel strength on steel	+23°C (+73°F)	N / cm	≥20	≥20	≥15	≥15	EN 12068
	+50°C (+122°F)		≥3	≥3	≥2	≥2	
Peel strength layer to layer	S10 / S10	N / cm	≥25	≥25	-	-	EN 12068
	S10 / 090		≥10	≥10	-	-	
	090 / 090		≥2	≥2	-	-	
Indentation resistance (residual layer thickness)	+50°C (+122°F)	mm	≥0.6 (1 MPa)	≥0.6 (10 MPa)	≥0.6 (1 MPa)	≥0.6 (10 MPa)	EN 12068
Impact resistance	J		≥10	≥15	≥10	≥15	GdF RV02
Cathodic disbondment resistance	mm		≤ 8	≤ 8	<15	<15	EN 12068
Lap shear strength (+23°C/ +73°F)	on Steel	N / cm ²	≥15	≥15	-	-	EN 12068

DENSOLEN® tapes can be easily applied manually. The processing with the original DENSO MAT® wrapping devices is even more efficient. For DENSOLEN® tapes with widths of > 50 mm, we recommend the use of the DENSO MAT® wrapping device to guarantee an excellent processing quality.

Ordering information and packaging

	Core diameter (mm)	Width (mm)	Tape length (m)	Tape area (m ²)	Number of rolls	Content per box		
						Total tape area (m ²)	Total tape length (m)	App. weight (kg)
DENSOLEN®-S10	41	30	15	0.45	18	8.1	270	9.7
		50	15	0.75	12	9	180	10.6
		100	15	1.5	6	9	90	10.5
DENSOLEN®-090	41	30	30	0.9	18	16.2	540	9
		50	30	1.5	12	18	360	10
		100	30	3.0	6	18	180	10

Additional lengths and widths are available on request.

Storage

When stored in its original, unopened packaging, DENSOLEN®-S10/-090 can be stored for at least 60 months after the manufacturing date.

Storage temperature: ≤ +50°C (+122°F)

Store in a dry location and do not rest anything against the front of the product.

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