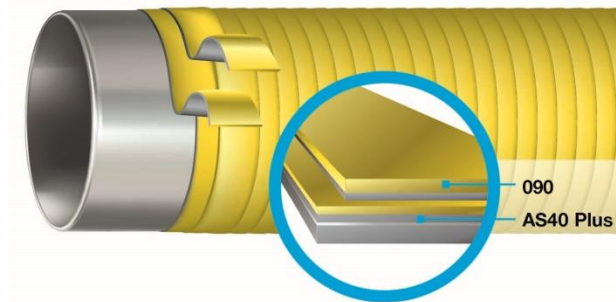


DENSOLEN®-AS40 Plus/-090

Product information



Special advantages:

- ✓ Approval by GRTgaz (FR) for stress class HR (RV02).
- ✓ **B50**
EN 12068 Fulfills stress class B 50 in accordance with EN 12068.
- ✓ Compatible with factory coatings made of PE, PP, FBE, PUR and bitumen.
- ✓ Ideal for corrosion prevention in gas pipe networks.

Two-tape system for the field-joint coating of pipelines especially gas pipe networks.

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®-AS40 Plus/-090 is a tape system for the permanent corrosion prevention for buried pipelines.

DENSOLEN®-AS40 Plus/-090 is outstandingly qualified for the use on pipes with smaller nominal pipe sizes. The yellow color of the outside tape is adapted to the use in gas pipe networks.

DENSOLEN®-AS40 Plus/-090 fulfills the requirements for stress class B 50 in accordance with EN 12068. In addition DENSOLEN®-AS40 Plus/-090 fulfills the requirements for stress class HR of the specification RV02 by GRTgaz (France) (certificate No. 106).

Standard designation:

- EN 12068 – B 50



DENSOLEN®-AS40 Plus as inside tape, fulfills essentially the corrosion prevention of the encasement system. DENSOLEN®-AS40 Plus is a co-extruded 3-ply tape with a two-sided asymmetrical butyl rubber coating. This 3-ply design establishes an essentially gas and water type encasement in the overlapping area of the tape through self-amalgamation of the upper and lower butyl rubber coating.

DENSOLEN®-090 is used as the outside tape in the encasement system and provides the mechanical protection of the inside tape. DENSOLEN®-090 is a flexible two-layer tape with a polyethylene outside layer and an inside butyl rubber coating, which welds together 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®-AS40 Plus 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	≥0.28	≥0.26	
Inside adhesive layer thickness app.	mm	≥0.44	≥0.14	
Outside adhesive layer thickness app.	mm	≥0.08	-	
Water absorption (1 d/ 30 d)	%	≤0.1/ ≤0.4	-	ASTM D570
Elongation at break	%	≥600	≥400	DIN 30672
Tape strength	N / cm	≥100	≥35	EN 12068
Electric strength	kV/mm	≥40	-	ASTM D149

DENSOLEN®-AS40 Plus/-090 with DENSOLEN®-HT Primer

Property	Unit	Typical value	Required value	Test method	
System design	Prime coat	DENSOLEN®-HT Primer	-	-	
	Inner tape	DENSOLEN®-AS40 Plus, 2 layers	-	-	
	Outer tape	DENSOLEN®-090, 2 layers	-	-	
Total thickness	mm	≥2.4	-	-	
Specific electrical insulation resistance	Ohm m ²	≥10 ¹⁰	≥10 ⁶	EN 12068	
Peel strength on steel	+23°C (+73°F)	N / cm	≥25	≥4	EN 12068
	+50°C (+122°F)	N / cm	≥2.5	≥0.4	EN 12068
Peel resistance layer to layer	AS40 Plus / AS40 Plus	N / cm	≥30	≥8	EN 12068
	AS40 Plus / 090	N / cm	≥30	≥8	
	090 / 090	N / cm	≥2	≥2	
Indentation resistance (residual layer thickness)	+23°C (+73°F) 1N/mm ² , stamp-Ø 5,65mm	mm	≥0.6	≥0.6	EN 12068
Impact resistance	J		≥16	≥15	GdF RV 02
	J		≥10	≥8	EN 12068
Cathodic disbondment resistance	mm	<6	<20	EN 12068	
Lap shear strength (+23°C/ +73°F)	on steel	N / cm ²	≥15	≥5	EN 12068
	on PE	N / cm ²	≥15	≥5	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)	Area per roll (m ²)	Content per box			App. weight (kg)
					Number of rolls	Total area (m ²)	Total tape length (m)	
DENSOLEN®-AS40 Plus	41	30	15	0.45	18	8.1	270	9.3
		50	15	0.75	12	9	180	10.2
		100	15	1.5	6	9	90	10.1
DENSOLEN®-090	41	30	30	0.9	18	16.2	540	9
		50	30	1.5	12	18	360	10
		100	30	3	6	18	180	10
	78	100	150	15	3	45	450	21

Additional lengths and widths are available on request.

Storage

When stored in its original, unopened packaging, DENSOLEN®-AS40 Plus/-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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