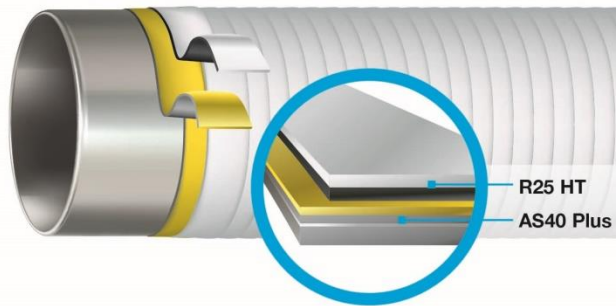


DENSOLEN[®]-AS40 Plus/-R25 HT



Product information



Special advantages:

- ✓ Approval by GRTgaz (FR) for stress class STHR (RV02).
- ✓ **C50**
EN 12068 Fulfills stress class C 50 in accordance with EN 12068.
- ✓ **12A-1**
ISO 21809-3 Fulfills the requirements of ISO 21809-3; Type 12A-1.
- ✓ Proven corrosion prevention with co-extruded three-ply tape.
- ✓ Compatible with factory coatings made of PE, PP, FBE, PUR and bitumen.

Two-tape system for the field-joint coating of pipelines, especially in case of very high mechanical stress and large nominal pipe sizes.

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/-R25 HT is a coating system for the permanent corrosion prevention of pipelines satisfying the highest requirements for mechanical stresses and durability. DENSOLEN[®]-AS40 Plus/-R25 HT is designed for the field-joint coating or the rehabilitation of corrosion prevention coatings on transport lines, especially for large nominal pipe sizes. The DENSOLEN[®]-AS40 Plus/-R25 HT system fulfills the requirements for the stress class C 50 in accordance with EN 12068 and additionally the high requirements for the stress class STHR of the RV02 specification

by GRTgaz (France) (certificate No. 214).

Standard designation:

- EN 12068 – C 50



DENSOLEN[®]-AS40 Plus inside tape, fulfills essentially the corrosion prevention of the encasement system. DENSOLEN[®]-AS40 Plus is a co-extruded 3-ply tape.

This three-layer 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[®]-R25 HT is a robust two-layer tape consisting of an outside layer made of high density polyethylene and an inside butyl rubber coating, which grows together with the outside layer of the inside tape.

The high strength polyethylene outside layer and the relative large tape thickness of 0.65 mm provide an outstanding mechanical protection of the corrosion prevention encasement.

Both **DENSOLEN[®]** tapes can be processed efficiently with the **DENSOMAT[®]** wrapping devices.

Typical product properties

Property	Unit	DENSOLEN®-AS40 Plus Typical value	DENSOLEN®-R25 HT Typical value	Test method
Carrier film color	-	Black	White, black or blue	-
Butyl adhesive color inside	-	Gray	Black	-
Butyl adhesive color outside	-	Black	-	-
Tape thickness	mm	≥0.8	≥0.65	ISO 4591 ASTM D1000
Carrier film thickness app.	mm	≥0.28	≥0.33	
Inside adhesive layer thickness app.	mm	≥0.44	≥0.32	
Outside adhesive layer thickness app.	mm	≥0.08	-	
Water absorption (1 d/ 30 d)	%	≤0.1/ ≤0.4	≤0.1/ ≤0.4	ASTM D570
Elongation at break	%	≥600	≥450	DIN 30672
Tape strength	N / cm	≥100	≥65	EN 12068
Dielectric strength	kV/mm	≥40	-	ASTM D149

DENSOLEN®-AS40 Plus/-R25 HT with DENSOLEN®-HT Primer

Property	Unit	Typical value	Required value	Test method	
System design	Primer	DENSOLEN®-HT Primer	-	-	
	Inner tape	DENSOLEN®-AS40 Plus, 2 layers	-	-	
	Outer tape	DENSOLEN®-R25 HT, 2 layers	-	-	
Total thickness	mm	≥2.9	-	-	
Specific electrical insulation resistance	Ohm m ²	≥10 ¹⁰	≥10 ⁸	EN 12068	
Peel strength on steel	+23°C (+73°F)	N / cm	≥25	≥10	EN 12068
	+50°C (+122°F)	N / cm	≥2.5	≥1	EN 12068
Peel strength layer to layer	AS40 Plus / AS40 Plus	N / cm	≥30	≥15	EN 12068
	AS40 Plus / R25 HT	N / cm	≥30	≥15	
	R25 HT / R25 HT	N / cm	≥3	≥2	
Indentation resistance (residual layer thickness)	+23°C (+73°F) (15 MPa)	mm	≥0.6	≥0.6	EN 12068/ RV02
Impact resistance	J	J	≥30	-	GdF RV02
	J	J	≥17	≥15	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	

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

		Width [mm]	Tape length [m]	Tape area (m ²)	Number of rolls	Content per box		
						Total tape area (m ²)	Total tape length (m)	Weight (kg)
DENSOLEN®-AS40 Plus	Core Ø 41 mm	30	15	0.45	18	8.1	270	7.0
		50	15	0.75	12	9	180	9.0
		100	15	1.5	6	9	90	10.2
	Core Ø 78 mm	100	70	7	3	21	210	19.0
150		70	10.5	2	21	140	19.0	
DENSOLEN®-R25 HT	Core Ø 41 mm	30	24	0.72	18	13	432	10.0
		50	24	1.2	12	14.4	288	11.0
		100	24	2.4	6	14.4	144	11.0
	Core Ø 78 mm	100	100	10	3	30	300	22.5

Additional lengths and widths are available on request.

Storage

When stored in its original, unopened packaging, DENSOLEN®-AS40 Plus/-R25 HT 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.

DENSO GmbH

Felderstrasse 24 | 51371 Leverkusen | Germany
Phone: +49 214 2602-0 | info@denso-group.com
www.denso-group.com

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