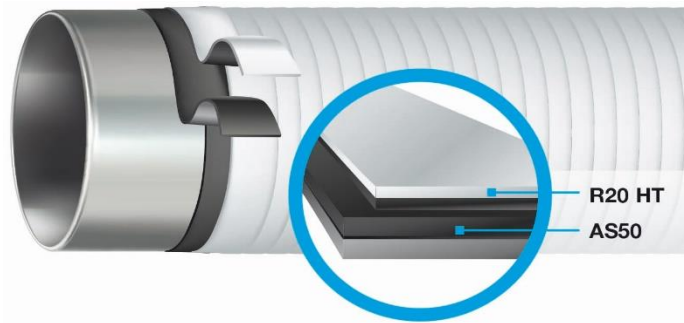


DENSOLEN®-AS50/-R20 HT



Product information

Special advantages:



- ✓ Maximum mechanical protection and maximum corrosion prevention.
- ✓ Exceeds the requirements of stress class C 50 in accordance with EN 12068.
- C50**
EN 12068 Fulfills EN 12068-C50 and DIN 30672-C50.
- 12A-1**
ISO 21809-3 Fulfills the requirements of ISO 21809-3; Type 12A-1.
- ≤ 85°C For temperatures up to +85°C (+185°F).
- ✓ Compatible with factory coatings made of PE, PP, FBE, PU, CTE and bitumen.

Two-tape system for the corrosion prevention coating of metal pipes and pipelines in accordance with DIN 30672, EN 12068. For extreme corrosion conditions and extreme mechanical stresses.

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®-AS50/-R20HT is a cold applied two-tape system for the corrosion prevention of metal pipes and pipelines with outstanding properties.

An indentation resistance of ≥ 1.2 mm, which exceeds the requirements of ≥ 0.6 mm for stress class C by 100% and an impact resistance of ≥ 20 J are proof for the uniqueness of this tape system.

DENSOLEN®-AS50/-R20HT is basically impermeable for water vapor and oxygen and it is resistant against soil bacteria and electrolytes. DENSOLEN®-AS50/-R20HT is compatible with factory coatings made of PE, PP, FBE, PU, CTE and Bitumen.

The system **DENSOLEN®-AS50/-R20 HT** consists of:

DENSOLEN®-HT Primer

A solvent containing primer in accordance with EN 12068 and DIN 30672 for corrosion prevention with **DENSOLEN®** tapes. Please refer to the separate product information of the **DENSOLEN®-HT primer**.

DENSOLEN®-AS50

A real co-extruded 3-ply plastic tape made from stabilized polyethylene carrier material with butyl rubber adhesive. **DENSOLEN®-AS50** has a thickness of ≥ 1.1 mm.

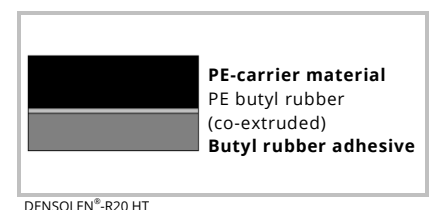
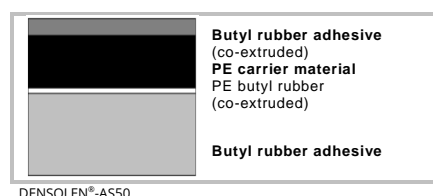
DENSOLEN®-AS50 fulfills the international standards DIN 30672, EN 12068, ASTM and AWWA.

DENSOLEN®-R20HT

A real co-extruded two-ply plastic tape made from stabilized white polyethylene carrier film with a butyl rubber adhesive on one side. Outstanding connection between the adhesive and the carrier film is guaranteed by the co-extruded intermediate layer.

The adhesive layer grows completely together with the outside layer of **DENSOLEN®-AS50**.

DENSOLEN®-R20 HT fulfills the international standards DIN 30672, EN 12068, ASTM and AWWA.



Typical product properties

Property	Unit	DENSOLEN®-AS50 Typical value	DENSOLEN®-R20HT Typical value	Test method
Carrier film color	-	Black	White	-
Butyl adhesive color inside	-	Gray	Black	-
Butyl adhesive color outside	-	Black	-	-
Total thickness	mm	≥ 1.1	≥ 0.5	ISO 4591 ASTM D1000
Carrier film thickness app.	mm	≥ 0.5	≥ 0.3	
Inside adhesive layer thickness app.	mm	≥ 0.5	≥ 0.2	
Outside adhesive layer thickness app.	mm	≥ 0.1	-	
Elongation at break	%	≥ 550	≥ 550	DIN 30672
Tape strength	+23°C (+73°F) N / cm	≥ 95	≥ 65	EN 12068
Dielectric strength	kV / mm	≥ 40	≥ 35	DIN 53481
Water absorption	+23°C (+73°F) 1 day / 30 days %	≤ 0.1 / ≤ 0.4	≤ 0.1 / ≤ 0.4	DIN 53495 ASTM D570
Brittleness temperature	°C (°F)	-46±4 (-50.8±7.2)	-46±4 (-50.8±7.2)	DIN 53372
		-58±4 (-72.4±7.2)	-58±4 (-72.4±7.2)	GOST 10354

DENSOLEN®-AS50/-R20 HT with DENSOLEN®-HT Primer

Property	Unit	DENSOLEN®-AS50/-R20HT Typical value		Required value	Test method	
Specific electrical insulation resistance	Ohm m ²	≥ 10 ¹⁰		≥ 10 ⁸	EN 12068	
Volume resistivity	Ohm cm	≥ 10 ¹⁵		Not stated	DIN 53482 ASTM D257	
Peel resistance metal/primer/tape	N / cm	+23°C (+73°F)	+50°C (+122°F)	≥ 10 ≥ 1	EN 12068 ASTM D1000	
		≥ 30	≥ 2.5			
Peel strength layer to layer	N / cm	+23°C (+73°F)	+50°C (+122°F)	≥ 15 ≥ 2	EN 12068	
		AS50 / AS50	≥ 30			≥ 4
AS50 / R20 HT		≥ 25	≥ 3	≥ 15	≥ 2	
R20 HT / R20 HT		≥ 3	≥ 3	≥ 2	≥ 2	
Indentation resistance - residual layer thickness at stamp load 10N/mm ² (stamp-Ø 1.8 mm)	mm	+50°C (+122°F)		> 0.6	EN 12068	
		≥ 1.2 (Class C exceeded by 100%!)				
Impact resistance	J	≥ 20		≥ 15	EN 12068	
Cathodic disbondment resistance	mm	≤ 6		Not stated	ASTM G8	
Lap shear strength	N / cm ²	+23°C (+73°F)		5	EN 12068	
		on steel	≥ 15			
		on factory coating	≥ 15			

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 per roll (m ²)	Content per box			App. weight (kg)
				Number of rolls	Total tape area (m ²)	Total tape length (m)	
DENSOLEN®-AS50 core Ø41 mm	50	10	0.5	12	6	120	9.5
	100	10	1.0	6	6	60	8.0
	150	10	1.5	6	9	60	12.0
DENSOLEN®-AS50 core Ø78 mm	100	50	5	3	15	150	18.5
	150	50	7.5	2	15	100	18.5
DENSOLEN®-R20 HT core Ø41 mm	50	30	1.5	12	18	360	11.0
	100	30	3.0	6	18	180	11.0
	150	30	4.5	6	27	180	17.0
DENSOLEN®-R20 HT core Ø78 mm	100	70	7	3	21	210	13.0
	150	70	10.5	2	21	140	13.0

Additional lengths and widths are available on request.

Storage

When stored in its original, unopened packaging, DENSOLEN®-AS50/-R20 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.

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08.2021