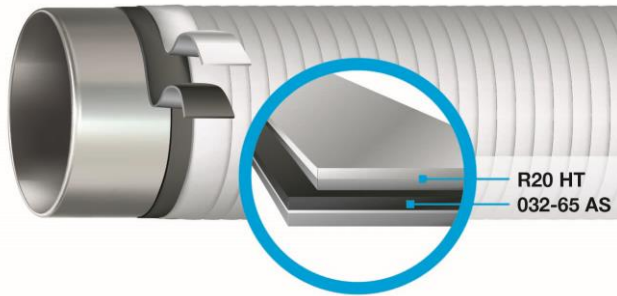


DENSOLEN® System 5 & System 6

DENSOLEN®-032-65 AS/-R20 HT

Product information



Special advantages:



For permanent operating temperatures up to +50°C (+122°F).



High cost effectiveness.



Modular systems: fulfill stress class B 50 or C 50 in accordance with EN 12068 and ÖNORM B 5250.

Robust two-tape field-joint coating system for the corrosion prevention 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® System 5 and **DENSOLEN® System 6** are field-joint encasement systems for the permanent corrosion prevention of buried pipelines and pipeline components.

DENSOLEN® System 5 and DENSOLEN® System 6 consist modularly of the corrosion prevention tape **DENSOLEN®-032-65 AS** and the mechanical protection tape **DENSOLEN®-R20 HT**. Depending on the number of tape layers of the outside tape, the stress classes **B** or **C** of EN 12068 are achieved.

Based on this modular design, these identical **DENSOLEN®** tapes can be used to establish the technically and economically optimal system in accordance with

the requirements of the construction project.

DENSOLEN® System 6 features an ÖVGW approval for stress class C 50 in accordance with EN 12068 and ÖNORM B 5250.

Standard designation:

- EN 12068 - B 50 & C 50
- ÖNORM B 5250 - B50 & C 50



DENSOLEN®-032-65 AS as the inner tape, assumes the major corrosion prevention properties of the system. DENSOLEN®-032-65 AS is a co-extruded 3-ply tape with an asymmetrical layer design. This design with a relative thin tape thickness of 0.65 mm provides nevertheless a thick butyl rubber coating on the pipe surface and therefore it pro-

vides an outstanding adhesive connection even if the pipe surface is uneven. Due to the butyl rubber layer at the upper side of the tape, a self-amalgamation effect will be achieved in the overlapping area and an essentially gas and water-tight as well as electrically high insulating encasement will be created. The low tape thickness results also in a good processability at pipe elbows and fittings.

DENSOLEN®-R20 HT is a robust two-ply tape. The solid polyethylene outside layer protects the encasement against mechanical stresses.

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

Typical product properties

Property	Unit	DENSOLEN®-032-65 AS Typical value	DENSOLEN®-R20 HT Typical value	Test method
Carrier film color	-	black	white, black, or blue	-
Butyl adhesive color inside	-	grey	black	-
Butyl adhesive color outside	-	black	-	-
Tape thickness	mm	≥0.65	≥0.5	ISO 4591 ASTM D1000
Carrier film thickness app.	mm	≥0.18	≥0.3	
Inside adhesive layer thickness app.	mm	≥0.39	≥0.2	
Outside adhesive layer thickness app.	mm	≥0.08	-	
Elongation at break	%	≥550	≥500	DIN 30672
Tape strength +23°C (+73°F)	N/cm	≥50	≥65	EN 12068
Dielectric strength	kV/mm	-	≥50	ASTM D149

Property	Unit	DENSOLEN® System 5 Typical value	DENSOLEN® System 6 Typical value	Required value		Test method	
				Class B	Class C		
System design	Primer	DENSOLEN®-HT Primer		-	-	-	
	Inner tape	DENSOLEN®-032-65 AS 2 layers		-	-	-	
	Outer tape	DENSOLEN®-R20 HT 2 layers		-	-	-	
Total thickness	mm	≥2.3	≥2.8	-	-	-	
Stress class	-	B 50	C 50	-	-	EN 12068	
Specific electrical insulation resistance	Ohm m ²	≥10 ¹⁰	≥10 ¹⁰	≥10 ⁶	≥10 ⁸	EN 12068	
Peel strength on steel	+23°C (+73°F)	≥15	≥15	≥4	≥10	EN 12068	
	+50°C (+122°F)	≥2	≥2	≥0.4	≥1		
Peel strength on PE	+23°C (+73°F)	≥10	≥10	≥2	≥4	EN 12068	
Peel strength layer to layer	032-65 AS / 032-65 AS	≥22	≥22	≥8	≥15	EN 12068	
	R20 HT / R20 HT	≥3	≥3	≥2	≥2		
Indentation resistance (residual thickness)	+23°C (+73°F) (10 MPa)	≥0.6	≥0.6	≥0.6 (1 MPa)	≥0.6 (10 MPa)	EN 12068	
Impact resistance	J	≥10	≥15	≥8	≥15	EN 12068	
Cathodic disbondment resistance	mm	<2	<2	<20	<20	EN 12068	
Lap shear strength	on steel	N/cm ²	≥8	≥8	≥5	≥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]	Tape area (m ²)	Content per box			
					Number of rolls	Total tape area (m ²)	Total tape length (m)	App. weight (kg)
DENSOLEN®-032-65 AS	41	30	15	0.45	18	8.1	270	6.0
		50		0.75	12	9.0	180	6.5
		75		1.125	12	13.5	180	10.0
		100		1.5	6	9.0	90	6.5
DENSOLEN®-R20 HT	41	30	15	0.45	18	8.1	270	5.0
		50		0.75	12	9.0	180	5.5
		75		1.125	12	13.5	180	8.0
		100		1.5	6	9.0	90	5.5
	30	50	1.5	12	18	360	11.0	
		75	2.25	12	27	360	17.0	
		100	3.0	6	18	180	11.0	
		150	4.5	6	27	180	17.0	

Additional lengths and widths are available on request.

Storage

When stored in its original, unopened packaging, DENSOLEN®-032-65 AS/-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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