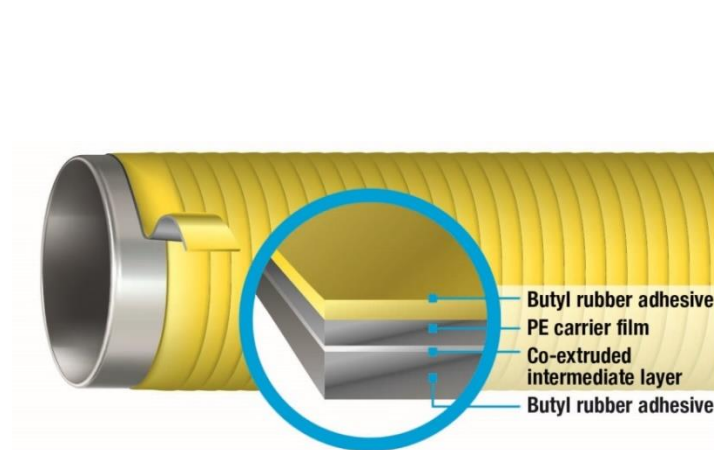


DENSOLEN[®]-AS40 Plus

Product information



Special advantages:



For temperatures up to +85 °C (+185 °F).



Fulfills EN 12068-B50 and -C50 and DIN 30672-B50 and -C50.



Fulfills ISO 21809-3, Type 12A-1.



Real co-extruded 3-ply tape.



Easy processing through adaptable and highly tear-resistant carrier film.



Compatible with factory coatings made of PE, PP, FBE, PU, CTE and bitumen.

Single tape system for the corrosion prevention coating of metal pipes and pipelines in accordance with DIN 30672, EN 12068, ASTM and AWWA. Corrosion prevention system proven for decades – for high mechanical and corrosive 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[®]-AS40 Plus is a cold applied single tape system for the corrosion prevention of metal pipes and pipelines in high mechanical and corrosive stress classes.

With its outstanding properties, DENSOLEN[®]-AS40 Plus is the proven corrosion prevention technology for cold applied corrosion prevention tapes since 1972. Due to the innovative formula, the tapes grow completely together in the overlapping area and create a long-lasting hose- type coating.

DENSOLEN[®]-AS40 Plus is a system approved by DIN-DVGW and it can be processed, depending on the protection class, three-layer (**B 50**) or four-layer (**C 50**).

DENSOLEN[®]-AS40 Plus is basically impermeable for water vapor and oxygen and it is resistant against soil bacteria and electrolytes.

DENSOLEN[®]-AS40 Plus is compatible with factory coatings made of PE, PP, FBE, PU, CTE and Bitumen.

The system DENSOLEN[®]-AS40 Plus consists of:

DENSOLEN[®]-HT Primer

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

DENSOLEN[®]-AS40 Plus

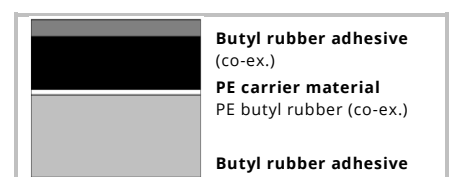
A real co-extruded 3-ply plastic tape made from stabilized polyethylene carrier film with butyl rubber adhesive.

DENSOLEN[®]-AS40 Plus fulfills the international standards DIN 30672, EN 12068, ASTM and AWWA.

Supplementary products:

DENSOLEN[®]-W and **-WP Mastic** as permanently plastic formable butyl rubber mastic for the equalization of unevennesses and cavities.

DEPROTECT[®]-DRM PP rockshields and rockshield hose made of polypropylene non-woven material for the additional mechanical protection of **DENSOLEN[®]** coatings with shock absorbing and load distributing effects.



DENSOLEN[®]- AS40 Plus

Typical product properties

Property	Unit	DENSOLEN®-AS40 Plus Typical value	Test method
Carrier film color	-	Black	-
Butyl adhesive color inside	-	Gray	-
Butyl adhesive color outside	-	Black or yellow	-
Total thickness	mm	≥ 0.8	ISO 4591 ASTM D1000
Carrier film thickness app.	mm	≥ 0.28	
Inside adhesive layer thickness app.	mm	≥ 0.44	
Outside adhesive layer thickness app.	mm	≥ 0.08	
Elongation at break	%	≥ 600	DIN 30672
Tape strength	+23°C (+73°F) N/cm	≥ 100	EN 12068
Dielectric strength	kV/mm	≥ 40	DIN 53481
Water absorption	+23°C (+73°F) 1 day / 30 days %	≤ 0.1 / ≤ 0.4	DIN 53495 ASTM D570
Brittleness temperature	°C (°F)	-46±4 (-50.8±7.2)	DIN 53372
		-58±4 (-72.4±7.2)	GOST 10354

DENSOLEN®-AS40 Plus (3 & 4 layers) with DENSOLEN®-HT Primer

Property	Unit	DENSOLEN®-System AS40 Plus Typical value		Required value	Test method
Specific electrical insulation resistance	Ω m ²	≥ 10 ¹⁰		≥ 10 ⁸	EN 12068
Volume resistivity	Ω cm	≥ 10 ¹⁵		Not stated	DIN 53482 ASTM D257
Peel resistance metal/prime coat/AS40 Plus	N/cm	+23°C (+73°F)	+50°C (+122°F)	≥ 10 ≥ 1	EN 12068 ASTM D1000
		≥ 25	≥ 2.5		
Peel resistance layer to layer AS40 Plus / AS40 Plus	N/cm	+23°C (+73°F)	+50°C (+122°F)	Not stated	EN 12068
		≥ 33	≥ 2.5		
Indentation resistance - residual layer	mm	+50°C (+122°F)		≥ 10 ≥ 2	EN 12068
4 layer (Stamp-Ø 1.80 mm - 10 N/mm ²)		≥ 0.8 (fulfills class C)			
3 layers (Stamp-Ø 5.65 mm - 1 N/mm ²)		≥ 0.8 (fulfills class B)			
Impact resistance (4 layer)/(3 layer)	J	≥ 15 (class C) / ≥ 10 (class B)		≥ 15 / ≥ 10	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

DENSOLEN®-AS40 Plus, Core Ø 41 mm

Tape width (mm)	Tape length (m)	Tape area (m ² /roll)	Content per box			App. Weight (kg)
			Number of rolls	Total tape area (m ²)	Total tape length (m)	
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	10.2
150	15	2.25	6	13.5	90	15.3

Additional lengths and widths are available on request.

Storage

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