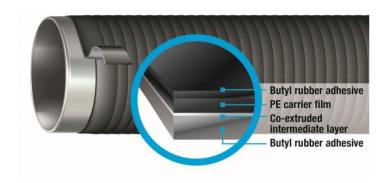
# DENSOLEN®-AS39 P

#### Product information





## Special advantages:



For temperatures up to +85  $^{\circ}$ C (+185  $^{\circ}$ F).



Fulfills EN 12068-C50 and DIN 30672-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®-AS39 P** is a cold applied single tape system for the corrosion prevention of metal pipes and pipelines in a high mechanical and corrosive stress classes.

With its outstanding properties, DENSOLEN®-AS39 P 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®-AS39 P is basically impermeable for water vapor and oxygen and it is resistant against soil bacteria and electrolytes.

DENSOLEN®-AS39 P is compatible with factory coatings made of PE, PP, FBE, PU, CTE and Bitumen.

The system DENSOLEN®-AS39 P consists of:

#### **DENSOLEN®-HT Primer**

A solvent containing primer in accordance with EN 12068 and DIN 30672 for the corrosion prevention with

**DENSOLEN**<sup>®</sup> tapes. Please refer to the separate product information of the DENSOLEN<sup>®</sup>-HT Primer.

#### **DENSOLEN®-AS39 P**

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

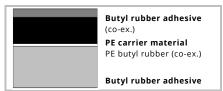
DENSOLEN®-AS39 P has a thickness of ≥ 0.8 mm.

DENSOLEN®-AS39 P fulfills the international standards DIN 30672 and EN 12068.

#### **Supplementary products:**

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

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







# Typical product properties

Property		Unit	DENSOLEN®-AS39 P Typical value	Test method	
Carrier film color		-	Black	-	
Butyl adhesive color inside		-	Grey	-	
Butyl adhesive color outside		-	Black or yellow	-	
Total thickness		mm	≥ 0.8		
Carrier film thickness app.		mm	≥ 0.28	ISO 4591	
Inside adhesive layer thickness app.		mm	≥ 0.44	ASTM D1000	
Outside adhesive layer thickness app.		mm	≥ 0.08		
Elongation at break		%	≥ 600	DIN 30672	
Tape strength	+23°C (+73.4°F)	N/cm	≥ 100	EN 12068	
Dielectric strength		kV / mm	≥ 40	DIN 53481	
Water absorption	+23°C (+73.4°F)	%	≤ 0.1 / ≤ 0.4	DIN 53495	
	1 day / 30 days			ASTM D570	
Brittleness temperature		°C (°F)	-46±4 (-50.8±7.2)	DIN 53372	
			-58±4 (-72.4±7.2)	GOST 10354	

#### DENSOLEN®-AS39 P (4 layers) with DENSOLEN®-HT Primer

Property	Unit	Typical value		Required value	Test method	
Electrical insulation resistance	Ohm m²	≥ 10 <sup>10</sup>		≥ 10 <sup>8</sup>	EN 12068	
Contact resistance	Ohm cm	≥ 10 <sup>15</sup>		Not stated	DIN 53482 ASTM D257	
Peel resistance		+23°C (+73.4°F)	+50°C (+122°F)			
metal/prime coat/AS39 P	N/cm	≥ 25	≥ 2.5	≥ 10 ≥ 1	EN 12068	
metal/prime coat/A339 F		≥ 33	≥ 2.5	Not stated	ASTM D1000	
Peel resistance layer to layer	N/cm	+23°C (+73.4°F)	+50°C (+122°F)		EN 12068	
AS39 P / AS39 P		≥ 30	≥ 4	≥ 10 ≥ 2		
Indentation resistance - residual layer	mm/N/mm²	+50°C (+122°F)				
thickness at stamp load: (Stamp-Ø 1.80 mm – four-layer)		≥ 0.8 / 10 (fulfills class C)		> 0.6	EN 12068	
Impact resistance (4 layer)	J	≥ 15 (class C)		≥ 15	EN 12068	
Cathodic disbondment resistance	mm	≤ 6		Not stated	ASTM G8	
Lap shear strength	N/cm²	+23°C (+73.4°F)				
on steel		≥ 15		≥ 5	EN 12068	
on factory coating		≥ 15		≥ 5		

**DENSOLEN®** tapes can be easily applied manually. The processing with the original **DENSOMAT®** wrapping devices is even more efficient. For **DENSOLEN®** tapes with widths of > 50 mm, we recommend the use of the **DENSOMAT®** wrapping device to guarantee an excellent processing quality.

# Ordering information and packaging

#### DENSOLEN®-AS39 P, Core Ø 78 mm

		_	Content per box			
Tape width (mm)	Tape length (m)	Tape area (m²/roll)	Number of rolls	Total tape area (m²)	Total tape length (m)	App. Weight (kg)
100	70	7	3	21	210	19,0
150	70	10,5	2	21	140	19,0

Additional lengths and widths are available on request.

### Storage

When stored in its original, unopened packaging, **DENSOLEN®-AS39 P** 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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