



Product Information

Special Advantages

- proven corrosion prevention technology
- easy to apply
- conformable and highly resistant carrier film
- one-tape system



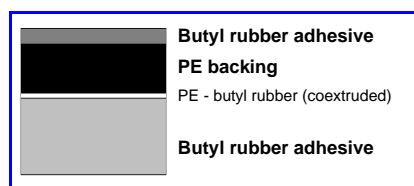
DENSOLEN[®]- System AS40 Plus

Corrosion protective tape system according to DIN 30672 and EN 12068 for wrapping of welded

joints, bends and pipes with operating temperatures up to + 50°C. For high mechanical

stresses and highly corrosive environments.

Description



DENSOLEN-Tape AS40 Plus

- 3-ply plastics tape with stabilised polyethylene backing and butyl rubber layers on both sides.
- Fully amalgamating within overlap area.
- Highly conformable to any surface structure by thick grey butyl rubber layer facing pipe surface.
- Excellent bonding between adhesive and carrier film via co-extruded intermediate layer

Tape-System

- Mechanically highly resistant tape system (stress-class C-50 acc. DIN EN 12068 with 4 layers).
- Sleeve-type coating due to self-amalgamation between each tape layer.
- Practically impermeable to water vapour and oxygen.
- Resistant to soil bacteria and soil electrolyte.
- Compatible with coatings from PE, PP, FBE, PU, CTE and Bitumen.

DENSOLEN-System

AS40 Plus - C50
4-layer wrapping
DIN-DVGW-Reg. No.
NG-5180AL0188
stress class C-50

DENSOLEN-System

AS40 Plus - B50
3-layer wrapping
DIN-DVGW-Reg. No.
NG-5180AR0756
stress class B-50

Use

- For site and yard wrapping of metal pipes or underground steel pipelines, including spiral- and seamwelded pipes.

- For corrosion protective wrapping of bare pipe joints and bare bends where the pipes have already received a factory coating.

Tape application by hand (tape width \leq 50 mm) or by wrapping machines (manually operated or motor driven).

Properties

DENSOLEN-Tape AS40 Plus

Property	Unit	Typical Values	Standard
Colour	carrier film	-	black
	adhesive inner layer	-	grey
	adhesive outer layer	-	black or yellow
Thickness	tape	mm	≥ 0,8
	carrier film	mm	app. 0,28
	adhesive inner layer	mm	app. 0,44
	adhesive outer layer	mm	app. 0,08
Elongation at break	%	≥ 600	DIN EN 12068
Tensile strength 23°C	N / 10mm	≥ 120	
Modulus at 10% elongation	N / 10mm	38	
Dielectric strength	kV / mm	35	ASTM D 149
Water absorption at 23°C after 1 day / 30 days	%	≤ 0,1 / ≤ 0,4	ASTM D-570
Saponification value carrier film and adhesive	mg KOH / g	1,0	DIN EN 12068
Permeability to water vapour	g / m ² · 24h	≤ 2 · 10 ⁻¹	DIN 53122
Permeability to oxygen		≤ 10 ⁻⁴	DIN 53536
Brittleness temperature	°C	-46±4	DIN 53372
		-58±4	GOST 10354

DENSOLEN One-Tape-System AS40 Plus (C-50)

Property	Unit	Typical Value	Standard	
Coating system	Primer	DENSOLEN-Primer HT / HT25 / MT25	-	
	Innerwrap	DENSOLEN-Tape AS40 Plus (2 layers)		
	Outerwrap	DENSOLEN-Tape AS40 Plus (2 layers)		
Standard indication	-	DIN EN 12068 - C-50	DIN EN 12068	
		DIN 30672 - C-50	DIN 30672	
Total thickness	mm	3,2	-	
Continuous operating temperature	°C	-60 up to +50°C	-	
Electrical insulation resistance	Ohm · m ²	> 10 ¹⁰	DIN EN 12068	
Volume resistivity	Ohm · cm	> 10 ¹⁵	ASTM D 257	
Impact resistance	J	18	DIN EN 12068	
		23°C	50°C	
Peel strength on steel	N / 10mm	25	3	DIN EN 12068
		45	5	DIN 30672-1
Peel strength on factory coating	N / 10mm	25	3	DIN EN 12068
Peel strength tape to tape	N / 10mm	45	5	DIN EN 12068
Indentation resistance - residual thickness (load 10 N/mm ² , punch-Ø 1,8 mm)	mm	1,5	1,0	DIN EN 12068
Lap shear resistance	on steel	15	7	DIN EN 12068
	on factory coating	15	7	
Cathodic disbonding (radius)	mm	8	28	DIN EN 12068
		8	-	ASTM G 8

Method of Application and Quantities Required

Please see detailed application instruction for DENSOLEN-tapes.

Packing

Standard dimensions

Tape	Core- \bar{A} [mm]	Width [mm]	Roll length [m]
AS40 Plus	41	30 / 50 / 100 / 150	15
	78	100 / 150	70

Other widths and lengths upon request

DENSO GmbH

P.O.Box 150120 • 51344 Leverkusen • Germany
 tel: +49-(0)214-2602-0 • fax: +49-(0)214-2602-318
 Internet: www.denso.de • E-Mail: info@denso.de

Values and properties shown in diagrams and tables are not subject to any guarantees. Our warranty is limited to the values and properties as required by the relevant standards. Our literature,

data sheets and recommendations represent our knowledge at the time of printing but are in no way legally binding on us.
 No 05 issue: 01/03 DENSOLEN AS40 Plus