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# PSI Anti-Corrosion Tape



# PSI Anti-Corrosion Tape

## The Systems

**PSI anti-corrosion tapes** have been specially developed for high-quality, on-site corrosion protection for joints, in cases where the pipeline has already been installed.

The material is easy, safe and quick to apply on welded joints, bends and other complicated shapes.

The systems fulfil the requirements of DIN 30672 and EN 12068, and they are also DVGW-approved.

PSI provides a choice between one-tape systems and a two-tape system for the highest loading class. Monosystems, which are fast to apply with lower material consumption, are also available.



# PSI Anti-Corrosion Tape

## The Systems

### Duo40 extra one-tape-system

Class C/50 acc.to EN 12068/  
DIN 30672, four layers

DVGW-reg.-No.: NV-5180BR0557

**Duo40 extra**, 2 x 50% overlap,  
**PSI-Primer HT extra**  
Total thickness 3,2 mm

Adhesive

PE-carrier

Adhesive

**System for high quality coating** of field-welded joints, complete pipes, bends and complicated shaped parts in all pipe diameters. The system is suitable when high shear resistance is required. It is possible to wrap by hand, although we recommend wrapping by machine.

**Duo 40 extra** is a very effective asymmetric three layer anti-corrosion tape, which amalgamates to a homogeneous coating. The soft butyl rubber allows application over a wide area without leaving any gaps.

### OT 65/IT 0,8 two-tape-system

Class C/50 acc. to EN 12068/DIN 30672

DVGW-reg.-No.: NV-5180BT0070

**OT 65**, 1 x 50% overlap

PE-carrier

Adhesive

**IT 0,8**, 1 x 50% overlap

**PSI-Primer HT extra**

Total thickness 2,9 mm, four layers

Adhesive

PE-carrier

Adhesive

System for high quality coating of field-welded joints, complete pipes or bends in all pipe diameters. The system is suitable when high shear resistance is required. It is possible to wrap by hand, although we recommend wrapping by machine.

**OT 65** is a two layer anti-corrosion tape, which amalgamates excellent with the inner tape IT 0,8. The white PE backing is

a stable mechanical protection for the inside layer.

**IT 0,8** is a symmetric three layer anti-corrosion tape, which amalgamates to a homogeneous coating. The soft butyl rubber inside layer moulds very well to irregular pipe surfaces and allows application over a wide area without leaving any gaps.

#### Technical specifications

Property	Test specification	OT 65	IT 0,8
Adhesive basis		Butyle rubber mixture	Butyle rubber mixture
Carrier basis		Polyethylene	Polyethylene
Colour		White/black	Black
Total thickness		0,65 mm	0,80 mm
Adhesive thickness inside		0,30 mm	0,335 mm
Adhesive thickness outside			0,335 mm
Carrier thickness		0,35 mm	0,13 mm
Elongation at break Core diameter	DIN EN 12068	>600 % 41 mm	>600 % 41 mm
Adhesion To itself at 23°C To itself at 50°C	DIN EN 12068 DIN EN 12068	6 N / 10 mm 2 N / 10 mm	40 N / 10mm 4 N / 10 mm
Application temperature**		-35 – 70°C	-35 – 70°C
Operating temperature		up to 50°C	up to 50°C

\*\* Tape temperature min. 10°C

### MonoTop40 one-tape system

Class B/30 acc.to EN 12068/DIN 30672

DVGW-reg.-No.: NV-5180BQ0144

**MonoTop40**, 1 x 50% overlap,  
**PSI-Primer P27**  
Total thickness 2,03 mm

PE backing

Adhesive

System for application on field-welded joints, complete pipes, bends and complicated shaped parts up to DN 600. Because of the system's **high flexibility**, it is perfect for hand wrapping without a wrapping machine.

MonoTop 40 is a very strong anti-corrosion tape which amalgamates to a homogeneous coating with a very flexible plastic surface.

# PSI Anti-Corrosion Tape

## Technical Specifications

### PSI Anti-Corrosion Tape

Properties	Test specification	Duo40 extra	MonoTop40
Adhesive basis		Butyl rubber Mixture	Butyl rubber Mixture
Carrier basis		Polyethylene	Polyolefins
Colour		yellow/black	black
Total thickness		0,80 mm	1,016 mm
Adhesive thickness inside		0,57 mm	0,610 mm
Adhesive thickness outside		0,03 mm	
Carrier thickness		0,20 mm	0,406 mm
Peel strength	DIN EN 12068		70 N/10 mm
Tensile strength	DIN EN 12068	11 N/mm	
Elongation at break	DIN EN 12068	>600%	400%
core diameter		41 mm	76 mm
Adhesion			
To primed steel at 23°C	DIN EN 12068	21 N/10 mm	30 N/10 mm
To primed steel at 50°C	DIN EN 12068	3 N/10 mm	3 N/10 mm
To itself	DIN EN 12068	50 N/10mm	20 N/10mm
Electrical resistance	ASTM D 1000		40 KV/mm
Water absorption*	ASTM D 257		0,60%
Application temperature**		-35 – 70 °C	-35 – 70 °C
Operating temperature		-35 – 85 °C	-35 – 85 °C
* Measurement on steel bonding tape ** Tape temperature min. 10°C			



### PSI-Primer:

Properties	Test specification	Unit	Type PSI-HT extra	Type PSI-P27
Colour			black	black
Density	ASTM 1298	g/cc	0,78	0,83
Solvent content	ISO 1515	%	20	27
Viscosity (4 mm needle)	ASTM D 1200	sec..	50	35
Flash point	ABEL IP 170	°C	-12	-12
Consumption		l/m <sup>2</sup>	app. 0,2 l	app. 0,2 l
Application temperature		°C	-30 – 60	-30 – 60

# PSI Anti-Corrosion Tape

## Requirement Specifications

Requirement specifications for welded joints with PSI anti-corrosion tape.  
Calculated width 400 mm, including overlap with existing coating.

Pipe diameter DN metric		Pipe (ISO)	Tapewidth metric	Primer- consumption per welded joint	One wrap with 50% overlap (two layers)		Two wraps with 50% overlap (four layers)	
DN	inch	mm	mm	litre	meters	m <sup>2</sup>	meters	m <sup>2</sup>
25	1	33,7	30	0,01	3,05	0,09	6,10	0,18
40	1 1/2	48,3	30	0,02	4,37	0,13	8,74	0,26
50	2	60,3	30	0,02	5,46	0,16	10,91	0,33
65	2 1/2	76,1	50	0,02	4,13	0,21	8,26	0,41
80	3	88,9	50	0,03	4,83	0,24	9,65	0,48
100	4	114,3	50	0,04	6,21	0,31	12,41	0,62
150	6	168,3	50	0,05	9,14	0,46	18,28	0,91
200	8	219,1	50	0,07	11,90	0,59	23,79	1,19
250	10	273,1	100	0,09	7,41	0,74	14,83	1,48
300	12	323,9	100	0,10	8,79	0,88	17,59	1,76
350	14	355,6	100	0,11	9,65	0,97	19,31	1,93
400	16	406,4	100	0,13	11,03	1,10	22,06	2,21
450	18	457	100	0,14	12,41	1,24	24,81	2,48
500	20	508	100	0,16	13,79	1,38	27,58	2,76
600	24	610	100	0,19	16,56	1,66	33,12	3,31
700	28	711	100	0,22	19,30	1,93	38,60	3,86
800	32	813	100	0,26	22,07	2,21	44,14	4,41
900	36	914	100	0,29	24,81	2,48	49,62	4,96
1000	40	1016	100	0,32	27,58	2,76	55,16	5,52
1100	44	1118	100	0,35	30,35	3,04	60,70	6,07
1200	48	1219	100	0,38	33,09	3,31	66,18	6,62
1300	52	1321	100	0,42	35,86	3,59	71,72	7,17
1400	56	1422	100	0,45	38,60	3,86	77,21	7,72
1500	60	1524	100	0,48	41,37	4,14	82,74	8,27
1600	64	1626	100	0,51	44,14	4,41	88,28	8,83

The above-mentioned quantities include an allowance of approx. 8%, because in practice slightly more than 50% overlap is wrapped and existing coatings with different thicknesses and diverse welded-joint systems, for example welded socket joints, are not recorded separately in this table.

The indicated primer consumption is based on average historical values and can differ according to the application method and the type of primer.



# PSI Anti-Corrosion Tape

## ALU TOP 30

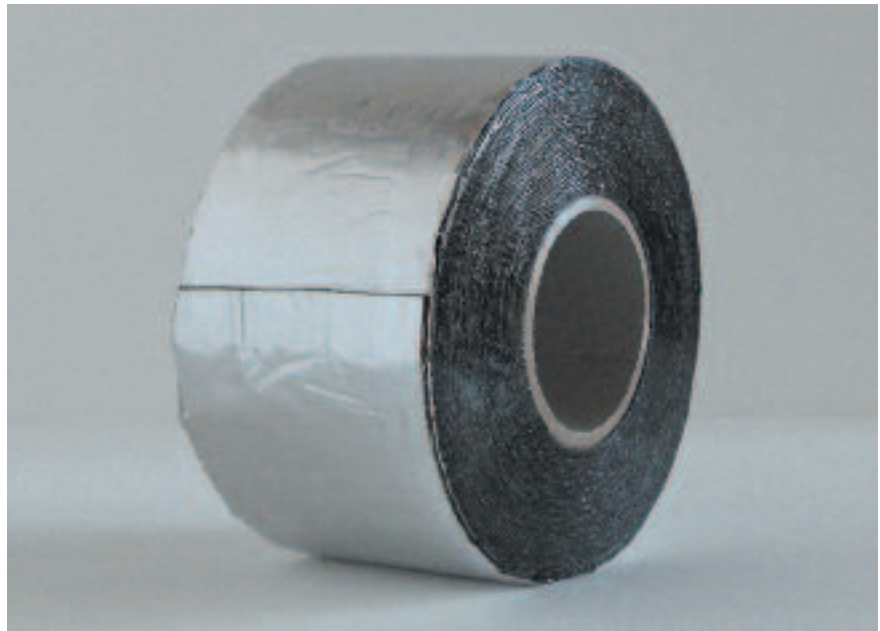


**PSI-ALU-TOP 30 provides protection against corrosion and UV for pipelines laid above ground.**

ALU-TOP 30 is a high-quality, self adhesive corrosion protection tape (cold applied), based on butyl rubber with an outer layer consisting of plastic-modified aluminium. The material offers the optimum in UV protection; the tape can be slightly stretched during use without breaking the aluminium layer. The system is particularly suitable for coating entire pipe sections, bends and irregularly shaped parts and for providing protection against UV rays. Thanks to its exceptional flexibility, it is particularly suitable for application by hand. As a rule, the system is treated with primer FP-P27 and is wound on with a 50% overlap.

**Storage:**

Rolls should be kept dry and standing on end.



**Technical data**

	PSI-Alu Top 30	Test method
Mass per unit area:	app. 1,9kg/m <sub>2</sub>	
Overall thickness:	1,5mm	DIN 52123
Exterior colour:	Aluminium-Blank	
Softening point:	> 95°C	DIN 52011
Cold bending process:	> -40°C	DIN 52123
Adherence to metal:	38 N/mm <sub>2</sub>	DIN ISO 4624
Temperature resistant:	-30°C – app. +80°C	
Tear strength:	29N	DIN 52123
DVGW-approval	no	

# Order Form



To

From

PSI Ltd

Fax +44 (0)1480 404662

Just copy form, fill out the volumes and fax to PSI

Name	Core Ø in mm	Width in mm	Length in m/Roll	pcs./ Carton	Art.-No.	pcs.	€ / pcs	sum
DUO40 extra yellow	41	30	15	18	4-034-21903			
DUO40 extra yellow	41	50	15	12	4-034-21904			
DUO40 extra yellow	41	100	15	6	4-034-21905			
DUO40 extra black	41	30	15	18	4-034-21900			
DUO40 extra black	41	50	15	12	4-034-21901			
DUO40 extra black	41	100	15	6	4-034-21902			
DUO40 extra black	76	100	50	3	4-034-21954			
Mono Top40	76	30	15	40	4-034-21949			
Mono Top40	76	50	15	24	4-034-21950			
Mono Top40	76	100	15	12	4-034-21951			
Alu Top30	76	50	15	24	4-034-21925			
Alu Top30	76	100	15	12	4-034-21926			
OT 65	41	50	25	12	4-034-21946			
OT 65	41	100	25	6	4-034-21947			
IT 0,8	41	50	20	12	4-034-21943			
IT 0,8	41	100	20	6	4-034-21944			
			<b>Litre/Can</b>	<b>kg/Can</b>				
PSI-Primer HT extra			1	1	4-034-21956			
PSI-Primer HT extra			5	5	4-034-21957			
PSI-Primer P27			1	1	4-034-21964			
PSI-Primer P27			5	5	4-034-21965			
Wrapping machine for tape width up to 100 mm, for core 41 mm					4-034-21966			
			<b>Width</b>	<b>Length</b>				
ISO-Petrolatumtape PE uni								
Roll			50 mm	10 m	4-034-21970			
Roll			100 mm	10 m	4-034-21971			
Roll			200 mm	10 m	4-034-21972			
Petrolatum			9 kg Carton		4-034-21973			
ISO-Bitumentape G								
Roll			100 mm	10 m	4-034-21980			
Roll			200 mm	10 m	4-034-21981			
Roll			300 mm	10 m	4-034-21982			
Primer V			1 Litre Can		4-034-21986			
Primer V			1 Litre Can		4-034-21985			

\* Prices acc. to valid pricelist

\_\_\_\_\_  
Date/Signature

# PSI Anti-Corrosion Tape

## Application Instructions

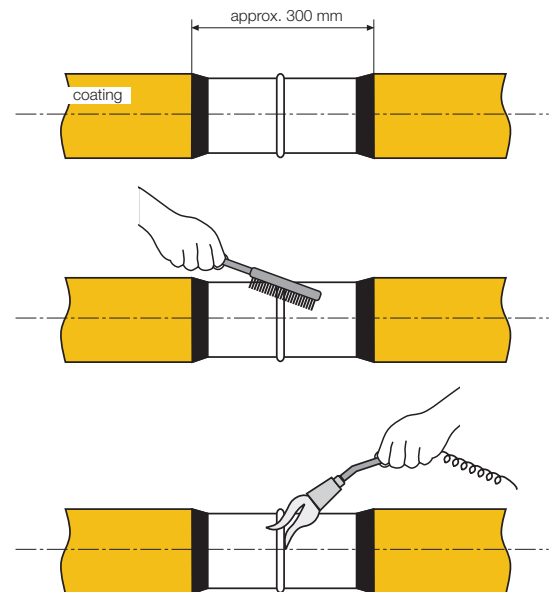


### Cleaning:

Prepare the pipe according to DVGW-instructions GW 15: **dry**, clean, grease-free and rust-free.

Chamfer the edges of the existing coating, to guarantee that cavities are clear.

Roughen the existing coating, at least 100 mm, with an abrasive cloth.



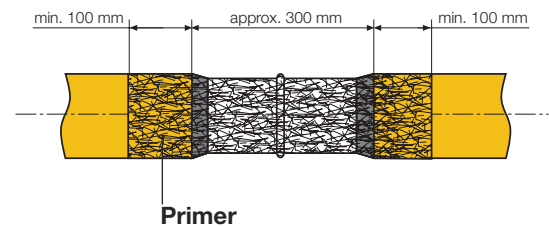
### Drying

#### Primer:

Make sure PSI-primer is well **stirred**. Primer is applied to the dried and cleaned surfaces, including at least 100 mm of the existing coating on both sides.

The curing time is approx. 10 minutes - please make a touch test to check!

When the primer has been applied for more than 4 hours, the pipe must be primed again. When the joint has been dried with a flame for a second time, the pipe must be primed again



#### Tape application in general:

All tapes are applied around the pipe using a spiral wrapping under constant strong tension with at least 50% overlap. The protective foil must be removed. The existing coating must be overlapped by at least 50 mm. For systems which require a double wrap, the outside layer must extend beyond the inside layer.

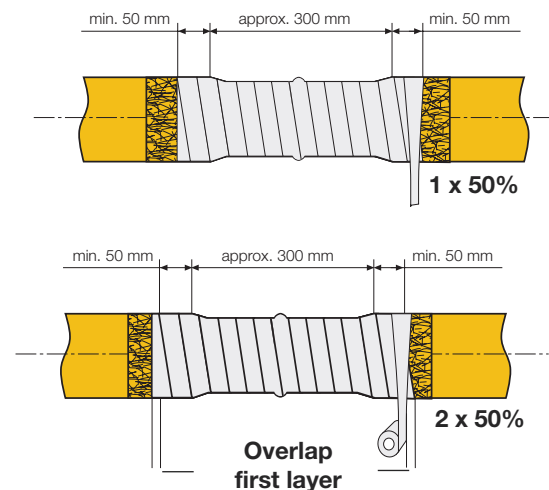
Please note that the tapes, as well as the pipe surface, have a temperature of at least 10C°.

#### Application of the systems:

**Duo 40 extra:** one-tape system, class C/50, acc. to EN12068/  
**PSI-Primer HT extra** DIN 30672, two layer with 50% overlap (4 layers)

**OT 65/IT 0,8** two-tape system, class C/50, acc. to EN 12068/  
**PSI-Primer HT extra** DIN 30672, one layer OT 65 (outside layer) with 50% overlap and one layer IT 0,8 (inside layer) with 50% overlap (4 layers)

**MonoTop 40:** one-tape system, class B/30 acc.to EN12068/  
**PSI-Primer P27** DIN 30672 one layer with 50% overlap (2 layers)



# PSI Anti-Corrosion Tape

## ISO Petrolatum tape



### Description:

The PSI ISO petroleum tape is suitable for pipeline coating. It can be used for house connections and fittings, but is particularly suitable for complicated parts such as T-pieces in connection with petroleum filling material.

The PSI ISO petroleum tape is an anti-corrosion binding with a chemical-fibre base material (100g/m<sup>2</sup>), coated with modified petroleum on both sides. It is highly adhesive and elastic, and has a high softening point. The PSI ISO petroleum tape is coated with a PE foil on the out-side. This foil is a diffusion-tight mechanical protection.

### Application instructions:

#### Cleaning:

Prepare the pipe according to DVGW-instructions GW 15: **dry**, clean, grease-free and rust-free. The PSI ISO petroleum tape - uni is to be used **without primer!**

#### Filler:

Fill cavities and round off sharp corners with petroleum filler.

#### Application:

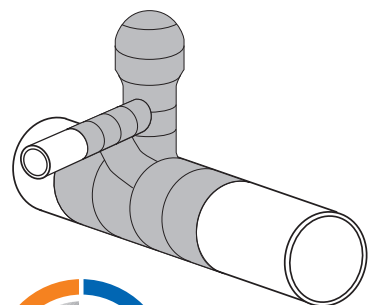
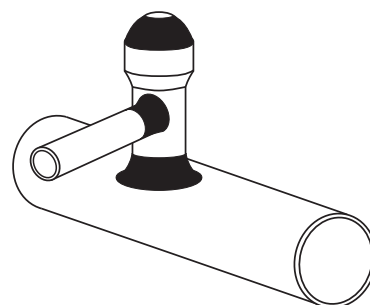
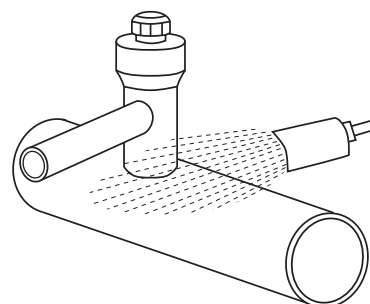
The tape should be wound on in **two layers**. We recommend that the first layer be wound on with a 50% overlap. The outer layer should be wound on in a spiral pattern with a 10 mm overlap. The joins with the existing factory coating should be included with a minimum 50 mm overlap in the winding all round. Care should be taken to ensure that the **PE backing** is on the outside. Ensure that the winding is free of puckering and air pockets.

Finally, press down the tape firmly and smooth by hand, particularly in the overlapping area. If subjected to severe mechanical loadings, the additional application of PSI fleece to protect the pipe is strongly recommended.



### Technical specifications:

Roll length:	10 m
Width:	50 100 150 200
Weight:	approx. 1,0 Kg/m <sup>2</sup>
Thickness:	approx. 1,5 mm
Colour:	beige to brown



DVGW-Reg.-No.: NG-5180BO0011

# PSI Anti-Corrosion Tape

## ISO Bitumen Tape GG



### Description:

The PSI ISO bitumen tape - GG is made for coating field-welded joints and fittings, and, in particular, for complicated parts such as flanges and T-pieces.

The PSI ISO bitumen tape - GG consists of a fibreglass base material, which is coated on both sides with modified bitumen. The material has a PE foil on one side. The binding is a warm-applied anti-corrosion tape with high elasticity.

### Technical specifications:

Roll length:	10 m
Width:	100 200 300 500 (special width available)
Thickness:	minimum 4 mm

### Application instructions: (example: welded joint)

#### Cleaning:

Prepare the pipe according to DVGW-instructions GW 15: **dry**, clean, grease-free and rust-free.

#### Drying:

Heat the weld area including approx. 100 mm of the existing coating with a gentle flame up to approx. 40-50°C.

#### Primer:

Make sure V-primer is well **stirred**. Primer is applied to the dried and cleaned surfaces, including at least 100 mm of the existing coating on both sides.

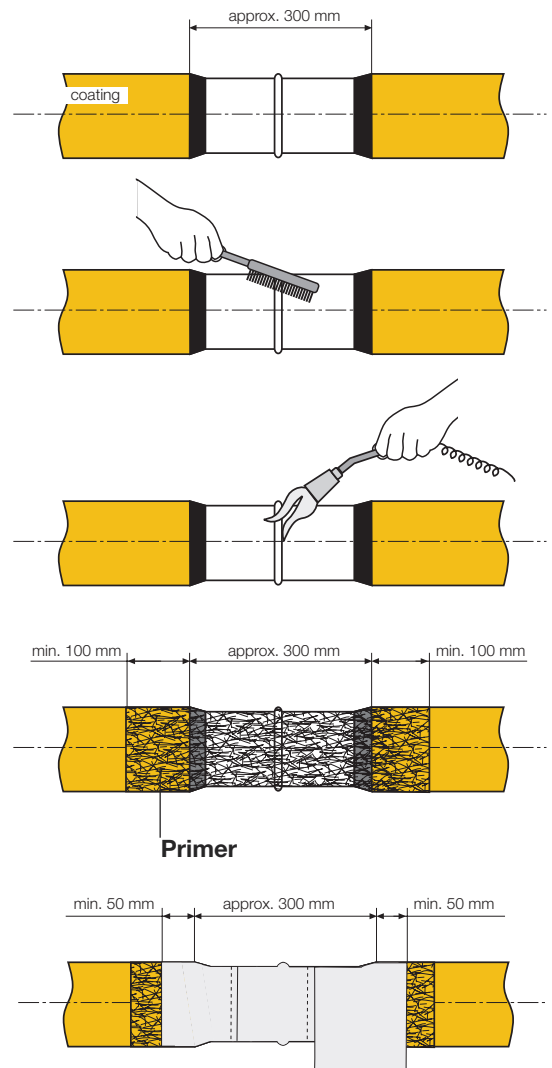
The curing time is approx. 10 minutes - please make a touch test to check!

When the primer has been applied for more than 4 hours, the pipe must be primed again. When the joint has been dried with a flame for a second time, the pipe must be primed again.

#### Tape application:

ISO GG bitumen tape is applied to form a sleeve (strips) with the backing strip facing outwards.

The tape should be cut into lengths equivalent to the circumference of the pipe plus 30 mm. It is heated with a propane gas flame on the inside until the bitumen flows. It is then applied to the preheated surface under tension and free of puckering, and pressed well down. In the overlapping areas (30 mm from layer to layer), the backing must be burned off beforehand. After the strips have been applied, the overlapping areas should be heated again and smoothed with a spatula.



DVGW-Reg.-No.: NG-5180AR0826

