

INTRODUCTION OF BC PRODUCTS

BC PETRO TAPE

General

BC Petro Tape is composed of synthetic fabric, filled with a petrolatum compound, inert fillers and special anti-corrosion agents for the protection of pipes, valves, flanges, couplings, pilings, and other steel structures. This product offers excellent protection against corrosion and creates a solid water barrier. BC Petro Tape has good resistance to acids, alkalis and salts.

Petrolatum is defined as "a purified mixture of semisolid hydrocarbons obtained from petroleum, occurring as an unctuous mass." Petrolatum is a soft, viscous, moisturizing material, which adheres comparatively well to rusty or slightly-moist steel. This material has some moisture-displacing capabilities, and generally only requires cleaning by hand or power-tool cleaning.

Characteristics

- Outstanding long term anticorrosive tape and applicable in such various places as open air environments, underground & underwater.
- Great efficiency with easy application and short working times.
- No changes in quality under extremely low temperature. (-270 °C)
- No cracking and hardening.
- Hygienically harmless and non-polluting.
- Environment-friendly design
- Can be applied to cold & wet surfaces.
- Encapsulates lead paints.

Uses

- Hydraulic pipes and cable lines on vessels.
- Fresh water pipes and CO₂ pipes on vessels.
- Ordinary and special-purpose pipe lines.
- Steel pilings and marine structures.
- Underground pipes or cables.
- Drainage pipe / Building plumbing pipe.
- Valves and flanges.
- Etc...

INTRODUCTION OF BC PPRODUCTS

BC PETRO TAPE

Size / Packing

Item Goods	ISSA Code	Description (WxTxL)	Rolls/Box	IMPA Code
BC Petro Tape	75.550.01	50mm	36 (360m)	81.24.71
	02	100mm	18 (180m)	72
	03	150mm x 1.2mm x 10m	12 (120m)	73
	04	200mm	9 (90m)	74
	05	300mm	6 (60m)	75
BC Petro Paste	75.550.01	3 kg/can	3 cans (9kg)	81.24.71
BC Petro Mastic	75.551.02	0.88kg/bar	25 bars (22kg)	81.24.83

Sub-materials

- **BC Petro Paste:** Petrolatum-based Primer for increasing adhesion and anti-corrosive property of BC Petro Tape (3kg/can).
- **BC Petro Mastic:** Petrolatum-based Filler of irregular shapes. (0.88kg/bar)
- **PVC Firm Tape:** PVC-based Outer Wrapping Tape for physical impact resistance and good appearance (yellow color).
- **Water Paint:** Synthetic Resin Emulsion Paint for Exterior for good appearance (several colors can be made according to pigment).

Application Procedure

- **General Procedure**
 - Surface Preparation by hand & power tool
 - Filling uneven surface with BC Petro Mastic
 - Priming with BC Petro Paste
 - Anti-corrosion taping with BC Petro Tape
 - Outer wrapping/Taping with PVC Film or Tape
 - Impact Protection cover

Application for vessel's pipeline

□ **SURFACE PREPARATION:** Remove moisture, loosen rust, mill scale, old coating, and dirt by rag and hand-tool cleaning. BC Petro Tape can be applied on wet surfaces. However, applying on dry surface should be recommended for best results.



Recommended for old pipelines

□ **PRIMING:** Apply a thin layer of BC Petro Paste to all surfaces by hand, using rubber gloves or by brush with pressure to displace any moisture that may be present. It wets the surface, displacing moisture thereby enhancing the corrosion protection.

BC Petro Paste doesn't require any drying time before the application of BC Petro Tape. The film thickness and coverage shall be at least 3 mil (76 μ) and approx. 0.3kg/m².

□ **BC PETRO MASTIC:** BC Petro Mastic is solid mastic filler used to fill in and smooth out the uneven surfaces.

It can also be used to fill in large voids in areas commonly found in flanges, couplings, u-bolts & etc. This filler is very conformable and self-adhering and can be applied as needed to allow a smooth & even surface prior to application of BC Petro Tape.



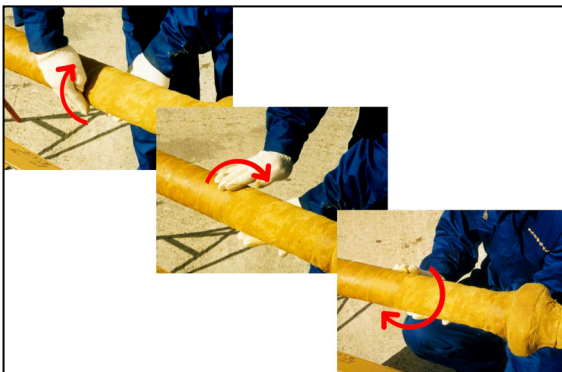
INTRODUCTION OF BC PPRODUCTS

BC PETRO TAPE

- **BC PETRO TAPE:** Wrap spirally BC Petro Tape around the surface or apply precut pieces to form over irregular surfaces.

BC Petro Tape should be applied with 1" minimum overlap or with 50% overlap for optimum results. On straight pipe, wrap with enough tension to obtain conformability to the surface.

On irregular surfaces, allow less tension for acquire conformability. The tape should be applied, pressing and molding the tape on the surface with conformability so that it does not bridge over irregular surface configurations or leave air pockets.



Spirally rub the whole tape with the same spiral direction, using rubber-gloved hands to give its smooth appearance.



Smooth over the whole surface of BC Petro Tape to unify the over-wrapped tape.

INTRODUCTION OF BC PPRODUCTS

BC PETRO TAPE

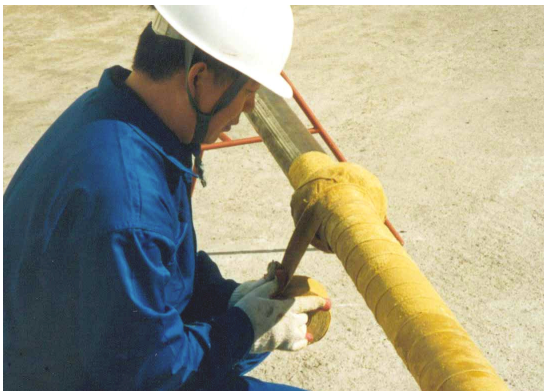
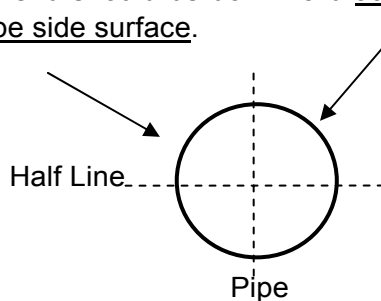
DO NOT leave the end of BC Petro Tape upward when finishing Tape wrapping.



This improper finished tape end can be self-released due to gravity and this improper finishing can weaken anti-corrosive activity of BC Petro Tape.



Tape end should be downward at middle point of pipe side surface.



Wrap both end of Flange with BC Petro Tape 50mm 1 mtr in order to finish loose tape at flange end tightly.

INTRODUCTION OF BC PPRODUCTS

BC PETRO TAPE



□ PVC FIRM FILM or TAPE (optional):

PVC Firm Tape is for additional wrapping material for good appearance and light impact protection if desired.



Softly apply one layer of spirally wrapping or precut pieces as needed. 1/2" minimum overlap is required.

DO NOT tighten PVC Tape strongly when overwrapping.

Copper Wire/ PVC Bending is required to tie up PVC Tape at intervals of 2~3mtr.



INTRODUCTION OF BC PPRODUCTS

BC PETRO TAPE

Conversion Table I

Required quantity for one (1) meter straight pipe

Pipe Nominal Diameter		Pipe Outer Dia.	Tape Width	Petro Tape 1/2 overlap 1/3 overlap		PVC Tape	Petro Paste New Pipes Existing Pipes	
(mm)	(inch)	(mm)	(mm)	(mtr)	(mtr)	(mtr)	(g)	(g)
10 A	3/8	17.3	50	2.4	1.8	2.76	11	16
15 A	1/2	21.7	50	3	2.3	3.45	14	20
20 A	3/4	27.2	50	3.8	2.8	4.37	17	26
25 A	1	34	50	4.7	3.6	5.41	21	32
32 A	1 1/4	42.7	50	5.9	4.5	6.79	27	40
40 A	1 1/2	48.6	50	6.7	5.1	7.71	31	46
50 A	2	60.5	100	4.2	3.1	4.83	38	57
65 A	2 1/2	76.3	100	5.3	3.9	6.1	48	72
80 A	3	89.1	100	6.2	4.6	7.13	56	84
90 A	3 1/2	101	100	7	5.2	8.05	64	96
100 A	4	114.3	100	7.9	5.9	9.09	72	108
125 A	5	139.8	150	6.4	4.8	7.36	88	132
150 A	6	165.2	150	7.6	5.7	8.74	104	156
175 A	7	190.7	150	8.8	6.6	10.12	120	180
200 A	8	216.3	200	7.5	5.6	8.63	136	204
250 A	10	267.4	200	9.2	6.9	10.58	168	252
300 A	12	318.5	200	11	8.3	12.65	200	300
350 A	14	355.6	250	12.3	9.2	14.15	223	335
400 A	16	406.4	250	14	10.6	16.1	255	383
450 A	18	457.2	300	10.5	7.9	12.08	287	431
500 A	20	508	300	11.7	8.8	13.46	319	479
600 A	24	609.6	300	14	10.5	16.1	383	575

► **NOTE:** The q'ty of PVC Firm Tape

1) Only straight pipe: **BC Petro Tape Length x 1.15**

2) Straight pipe + Flange: **BC Petro Tape Length x 1.25**

Conversion Table II

Required quantity for one (1) flange

Pipe Nominal Dia.		Tape Width	Petro Tape	PVC Tape	Petro Paste	Petro Mastic
(mm)	(inch)	(mm)	(mm)	(mm)	(g)	(kg)
10 A	3/8	50	81.5	102	13	0.22
15 A	1/2	50	103	129	14	0.24
20 A	3/4	50	129	161	19	0.39
25 A	1	50	161	201	21	0.42
32 A	1 1/4	50	202	253	26	0.59
40 A	1 1/2	50	229	286	28	0.68
50 A	2	100	285	356	32	0.71
65 A	2 1/2	100	360	450	49	0.8
80 A	3	100	420	525	56	0.85
90 A	3 1/2	100	476	595	62	0.98
100 A	4	100	539	674	67	1.04
125 A	5	150	659	824	98	1.89
150 A	6	150	779	974	123	2.23
175 A	7	150	899	1124	155	2.72
200 A	8	200	1019	1274	186	2.8
250 A	10	200	1260	1575	270	3.62
300 A	12	200	1501	1876	357	3.94
350 A	14	250	1675	2094	403	4.71
400 A	16	250	1915	2394	476	5.93
450 A	18	300	2154	2693	545	6.96
500 A	20	300	2393	2991	606	7.94
600 A	24	300	2872	3590	760	9.38

► NOTE

One (1) Flange requires Petro Tape 50mm width one (1) meter
(for tape finishing at the front and back end of flange)

Information

□ **Rough Estimate for Required Materials**

1) **For straight pipes**

a/ BC Petro Tape : Required tape length can be figured out by the following formula or by the Conversation Table I.

$$\frac{\text{O. Dia. of Pipe (mm)} \times 3.14 \times \text{length of Pipe (m)}}{\text{Tape Width (mm)} - \text{Overlap Width (mm)}} \times 1.1$$

b/ BC Petro Paste : 0.30 kg/m² (Conversation Table I)

(** In case of “Underwater type” Paste, more than twice of amount than “normal” Paste to cover same area)

2) **For flanges**

a/ Number of flanges can be estimated by the following formula if actual survey and/or precise drawing is not available :

$$\begin{aligned} & \text{Pipe Length Overall (m)} \div 5.5 \text{ m (standard length)} \\ & \times 1.3 \text{ (Margin for elbows and any other deformed parts)} \end{aligned}$$

b/ BC Petro Tape

- Required Tape Length per flange can be roughly figured out by following formula:

$$\text{O. Dia. (m)} \times 3.14 \times 1.5 \text{ (margin)}$$

- 50 mm width tape 1 meter is required additionally for tacking up the tape covering one flange.

c/ BC Petro Paste : 0.35 kg/m² (**Conversion Table II**)

d/ BC Petro Mastic (**Conversion Table II**)

INTRODUCTION OF BC PPRODUCTS

BC PETRO TAPE

□ **SAMPLE: for 80A x 300 meters pipe** Outer Dia. - 89.1 mm (existing pipe)

1) For straight pipes (**Conversion Table I**)

a/ Required **BC Petro Tape**

$$6.2 \text{ m / one meter pipe} \times 300 \text{ meter} = 1,860 \text{ m}$$

100 mm width x 186 rolls

b/ Required **BC Petro Paste**

$$84 \text{ g / one meter pipe} \times 300 \text{ meter} = \boxed{25.20 \text{ kg}}$$

2) For flanges (**Conversion Table II**)

$$\text{a/ Number of flanges : } 300 \text{ m} \div 5.5 \text{ m} \times 1.3 = 71 \text{ pcs}$$

b/ BC Petro Tape

- Required BC Petro Tape for covering flange:

$$0.0891 \text{ m} \times 3.14 \times 1.5 = 0.42 \text{ m/flange}$$

$$71 \text{ pcs} \times 0.42 \text{ m/flange} = 29.82 \text{ m}$$

100 mm width x 3 rolls (30 m)

- Required BC Petro Tape for tacking up:

50 mm width x 8 rolls (80 m)

$$\text{c/ BC Petro Paste} \quad 71 \text{ pcs} \times 56 \text{ g/flange} = \boxed{3.97 \text{ kg}}$$

$$\text{d/ BC Petro Mastic} \quad 71 \text{ pcs} \times 0.85 \text{ kg/flange} = \boxed{60.35 \text{ kg}}$$

3) Total

a/ BC Petro Tape	100 mm x 1.2mm x 10 m	189 rolls
	50 mm x 1.2mm x 10 m	8 rolls

$$\text{b/ BC Petro Paste} \quad 29.17 \text{ kgs}$$

$$\text{c/ BC Petro Mastic} \quad 60.35 \text{ kgs}$$

MATERIAL SAFETY DATA SHEET

[SECTION I] PRODUCTION IDENTIFICATION

MANUFACTURER / SUPPLIER :

BC TAECHANG INDUSTRIAL CORPORATION.

#640-1, Youngju-Dong, Chung-Ku,

Busan, Korea

Information Phone : +82 51 442 6191~2

Information Telefax : +82 51 442 6193

TRADE NAME : BC Petro Tape, Paste and Mastic

DESCRIPTION : Corrosion resistant coating for tanks, machinery and steel pipes

[SECTION II] INGREDIENTS

	PERCENT	CAS NUMBER	CHEMICAL NAME
BC PETRO TAPE	60	8009 – 03 – 8	Petrolatum
	10	13776 – 74 – 4	Talc
	30	1317 – 65 – 3	CaCO ₃
BC PETRO PASTE	75	8009 – 03 – 8	Petrolatum
	25	1317 – 65 – 3	CaCO ₃
BC PETRO MASTIC	50	8009 – 03 – 8	Petrolatum
	20	13776 – 74 – 4	Talc
	30	1317 – 65 – 3	CaCO ₃

CLASSIFICATION:

EEC : The product is not classified as a dangerous products

Nature of Hazard (R-Phrases) – None

Safety Advice (S-Phases) – None

TRANSPORT : ADR / RED CLASS – None

UN No. – None

[SECTION III] PHYSICAL AND SAFETY DATA

TEMPERATURE SUITABILITY : -170°C ~ 80°C

FLASH POINT : approx. 250°C

MATERIAL SAFETY DATA SHEET

[SECTION IV] HEALTH HAZARD DATA AND PROTECTIVE MEASURES (continued)

FIRST AID

* INHALATION : Not required

* INGESTION : Drink water, do not induce vomiting. Consult a physician if unwell.

* EYE : Hold eyelids apart and rinse eyes with running water.

If irritation persists, consults an eye specialist.

* SKIN CONTACT : Wash skin with soap and water and remove contaminated clothing.

PROTECTIVE MEASURES : Use rubber gloves when material is applied

[SECTION V] FIRE HAZARD DATA AND PROTECTIVE MEASURES

FIRE RISK : The materials are not classified as flammable but they can be burnt.

MEASURE IN CASE OF FIRE : Suitable extinguishing medias are water spray (fog), carbon dioxide, foam or dry powder.

[SECTION VI] STORAGE, HANDLING & DISPOSAL

STORAGE & HANDLING : The products should be stored in a cool, well ventilated place and handled / used in accordance with good industrial hygiene and in conformity with any legal regulation.

DISPOSAL : Can be burnt in incinerators suitable for liquid waste and in accordance with local authority regulations.

NOTE : THE DETAILS CONTAINED ARE BASED ON OUR PRESENT STATE OF KNOWLEDGES AND EXPERIENCES AND ARE TO CHARACTERIZE OUR PRODUCT WITH REGARD TO ANY POSSIBLE SAFETY REQUIREMENTS. THE INFORMATION SHOULD NOT, THEREFORE, BE CONSTRUED AS SPECIFIC PROPERTIES.