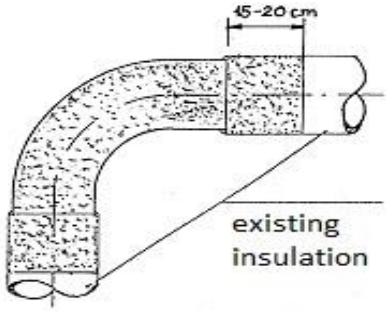
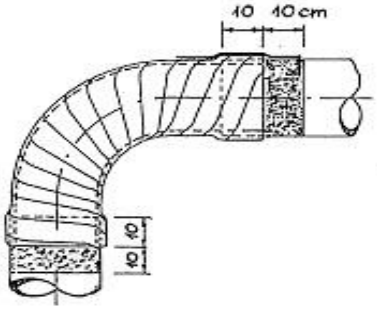
PE TAPE COATING APPLICATION PROCESS
COATING TECHNOLOGY – ANTICORWrap
INSULATION OF BENDS AND ELBOWS

C O R R O S I O N P R O T E C T I O N





1. Preparation of steel surfaces:
   Remove rust, welding contaminations, dust, oil, grease, water, and other contaminants from the pipe surface. It is recommended to prepare the surface to the Sa 2½ of cleanness according to ISO 8501-1. The Sa 2 class of cleanness (achieved by powered brushing) is also permissible in justified cases. Remove remainders of abrasive materials and dust after cleaning. Use a fat-free solvent to degrease the surface next (e.g. isopropyl alcohol, extraction naphtha, etc.) **Note! These are flammable materials!** To remove dampness, the surface may be slightly heated with a mild flame of burner but the temperature of the pipe immediately before the application of a primer may not exceed 40ºC. Clean the existing coating, roughen the surface by use of abrasive cloth (grit 40) and degrease at a length of ca. 20 cm beyond its edges. Remove any remainders of abrasive materials! If the edges of adjacent insulation are not bevelled, prepare 15º bevels or smooth the edges using Butylmastik, after primer application.
2. Preparation of the surface of an existing factory coating:
   Prepare the existing protective coating, roughen the surface by gently applying a stream of abrasive material or with the use of abrasive cloth (grit 40) and degrease at a length of ca. 20 cm beyond its edges. Remove any remainders of abrasive materials! If the edges of adjacent insulation are not bevelled, prepare 15º bevels or smooth the edges using Butylmastik after primer application.
3. Conditioning of coating materials: for optimum results, coating materials should be applied at a minimum roll body temperature of (+21°C).
   For this reason, **materials should be conditioned in room or heated car at temperature up to 25ºC.**
   Primer does not need to be heated prior to application. If ambient temperature is significantly cold enough to cause gelling of primer, drum heaters **(but not open flame of burner!)** are recommended to return the primer to a fully liquid state.
4. Application of a primer: apply a primer on the surface, including the cleaned areas of factory insulation. **The primer should be carefully mixed before application!** The temperature of the surface should be minimum 3ºC higher than the dew point. Leave the primer layer until it reaches the dust dryness condition (the layer is viscous but does not soil fingers when touched). The time needed depends on the temperature and ambient humidity values. Always use primers and tapes supplied by the same producer.
5. Use Butylmastik in tape form 50 mm width and 3 mm thick on the weld seam.
6. Complete the basic layer of anticorrosion coating by wrapping the tape spirally (manually) with an overlap in accordance with demanded class of insulation, so as to cover the existing coating at sections of ca. 10 cm on both sides (cf. the figure). Note: The width of tape overlap should be at least 20 mm.The overlap width is given for the side with a larger radius. On the side with a smaller radius, the overlap width will certainly be larger! Apply the tape with some initial tension. At a correct tension value, the width of the tape is reduced by ca. 1–2%. Control tape tension!
7. Complete a mechanical protection layer repeating the steps described in section 5, covering the existing pipe insulation at sections of ca. 15 cm on both sides. The overlapping sections of the mechanical protection layer should not match the overlapping sections of the basic anticorrosion layer!
8. Check the tightness of the completed coating using a holiday detector. Test voltage is 5kV/1mm of coating thickness but not more than 15kV according to EN12068.
   Strictly follow the rules for spark flow detector operation!

REV2-122020

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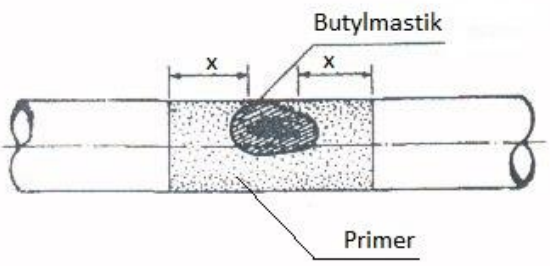
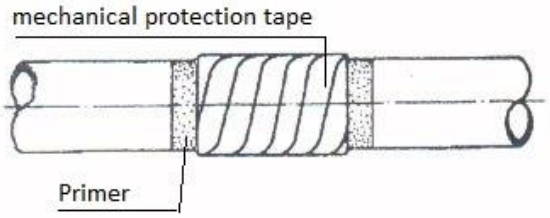
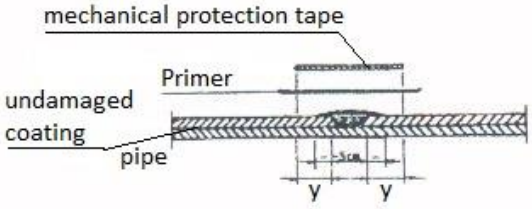
PE TAPE COATING APPLICATION PROCESS
COATING TECHNOLOGY – ANTICORWrap
REPAIR OF DAMAGED COATING

C O R R O S I O N P R O T E C T I O N







y = x- (2..3) cm

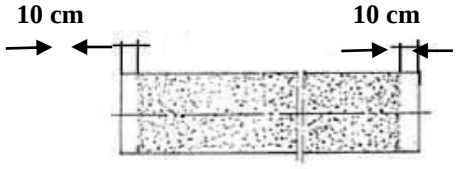
1. Preparation of defect and adjacent area of coating:
   Smoot and bevel the defect edges. Remove rust, dust, oil, grease, water, and other contaminants from the coating surface about 15 cm from defect edges circumferentially (see "x" on the picture). Rough cleaned area by use of abrasive cloth (grid 40) including exposed surface of steel. Use a fat-free solvent with alcohol base to degrease the surface (e.g. denatured spirit, isopropylene alcohol – but not extraction naphtha! -in case of tape insulation repair)
   Note! These are flammable materials!
2. Conditioning of repair materials
   For optimum results, both the Butylmastik and tape should be applied at a minimum roll body temperature of (+21°C). For this reason, **repair materials should be conditioned in room or heated car at temperature up to 25ºC.**
   Primer does not need to be heated prior to application. If ambient temperature is significantly cold enough to cause gelling of primer, drum heaters **(but not open flame of burner!)** are recommended to return the primer to a fully liquid state.
3. Application of primer:
   Check a dew point temperature. The temperature of protected surface should be minimum 3ºC higher than dew point temperature.
   Apply a primer on the cleaned and roughed surface (see item 1). The primer should be carefully mixed (by tin shaking) before application! Leave the primer layer until it reaches the dust dryness condition (the layer is viscous but does not soil fingers when touched it).
4. Repair path preparation - Prepare Butylmastik path for filling a loss of coating defect. The path should be 50 mm greater in any side of defect and should has about 3-4 mm thickness. Place a prepared path on the defect.
5. Apply the mechanical protection tape spirally on the whole primed area with 50% overlap and proper tension. At a correct tension value, the width of the tape is reduced about 1–2%. Control tape tension continuously. Overlaps repair tape and overlap existing coating must not coincided!
6. Check the tightness of the completed coating using a holiday detector. Test voltage is 5kV/1mm of coating thickness but not more than 15kV according to EN12068. **Strictly follow the rules for holiday detector operations!**

PE TAPE COATING APPLICATION PROCESS
COATING TECHNOLOGY – ANTICORWrap
INSULATION OF STRAIGHT PIPE SECTION & WELDED JOINT

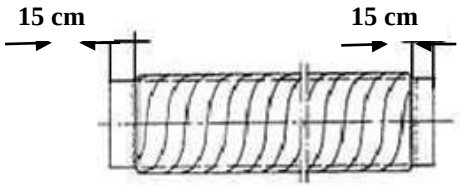
C O R R O S I O N P R O T E C T I O N

APPLICATION PROCESS
Straight pipe section

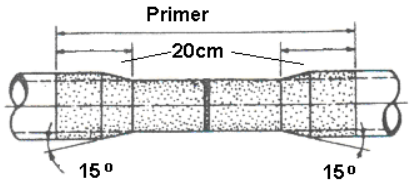
Primer application

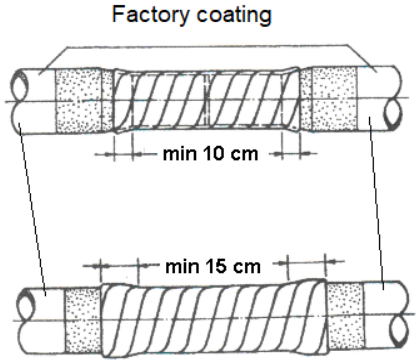


Tape application



Welded joint protection





1. Preparation of steel surfaces:

Remove rust, welding contaminations, dust, oil, grease, water, and other contaminants from the pipe surface. It is recommended to prepare the surface to the Sa 2½ of cleanness according to ISO 8501-1. The Sa 2 class of cleanness (achieved by powered brushing) is also permissible in justified cases. Remove remainders of abrasive materials and dust after cleaning. Use a fat-free solvent to degrease the surface next (e.g. isopropyl alcohol, extraction naphtha, etc.) **Note! These are flammable materials!**

To remove dampness, the surface may be slightly heated with a mild flame of burner but the temperature of the pipe immediately before the application of a primer may not exceed 40ºC. In case of welded joints insulation, the preinsulated pipes clean the existing coating, roughing the surface by use of abrasive cloth (grit 40) and degrease at a length of ca. 20 cm beyond its edges (see scheme). Remove any remainders of abrasive materials! If the edges of adjacent insulation are not bevelled, prepare 15º bevels or smooth the edges using Butylmastik, after primer application.

2. Conditioning of coating materials

For optimum results, coating materials should be applied at a minimum roll body temperature of (+21°C). For this reason, **materials should be conditioning in room or heated car at temperature up to 25ºC.**

Primer does not need to be heated prior to application. If ambient temperature is significantly cold enough to cause gelling of primer, drum heaters **(but not open flame of burner!)** are recommended to return the primer to a fully liquid state.

3. Application of primer:

Apply a primer on the surface, including the cleaned areas of existing insulation. The primer should be carefully mixed (by tin shaking) before application! The temperature of the surface should be at least 3ºC higher than the dew point. Leave the primer layer until it reaches the dust dryness condition (the layer is viscous but does not soil fingers when touched). The time needed depends on the temperature and ambient humidity values. Always use primers and tapes supplied by the same producer.

4. Use the Butylmastik in tape form 50 mm width and 3 mm thick on the weld seam circumferentially and symmetrically.

5. Complete the basic layer of anticorrosion coating first by wrapping the internal tape spirally (manually or using a wrapping machine) with an overlap 50%, to cover the existing coating. (see scheme). After that wrap the mechanical protection layer with 50% overlap. Overlaps tapes must not coincided!

6. Apply the tapes with some initial tension. At a correct tension value, the width of the tape is reduced by about 1–2%. Control tape tension!

7. Check the tightness of the completed coating using a holiday detector. Test voltage is 5kV/1mm of coating thickness but not more than 15kV (according to EN12068).

Strictly follow the rules for holiday detector operations!

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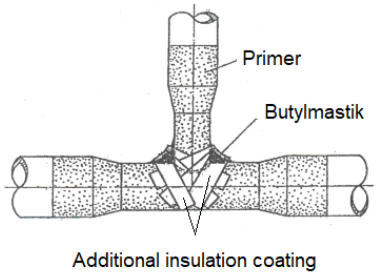
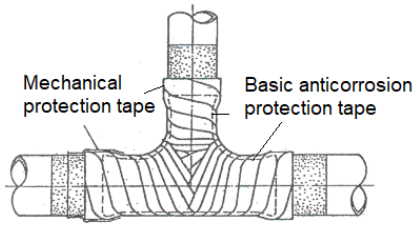
PE TAPE COATING APPLICATION PROCESS
COATING TECHNOLOGY – ANTICORWrap
INSULATION OF T-CONNECTION & ANGULAR CONNECTION

C O R R O S I O N P R O T E C T I O N





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   Clean the existing coating, roughen the surface by use of abrasive cloth (grit 40) and degrease at a length of ca. 20 cm beyond its edges. Remove any remainders of abrasive materials! If the edges of adjacent insulation are not bevelled, prepare 15º bevels or smooth the edges using Butylmastik, after primer application.
2. Preparation of the surface of an existing factory coating: prepare the existing protective coating, roughen the surface by gently applying a stream of abrasive material or with the use of abrasive cloth (grit 40) and degrease at a length of ca. 20 cm beyond its edges.
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5. Use Butylmastik in tape form 50 mm width and 3 mm thick on the angular transition of the pipe and the weld seam with the Butylmastik mass (after applying the primer) - see the drawing.
6. Perform auxiliary insulation in the area of angular transition of pipes from unstressed belt strips (see the drawing).
7. Complete the basic layer of anticorrosion coating by wrapping the tape spirally (manually) with an overlap in accordance with demanded class of insulation, so as to cover the existing coating at sections of ca. 10 cm on both sides (cf. the figure). Note: The width of tape overlap should be at least 20 mm. The overlap width is given for the side with a larger radius. On the side with a smaller radius, the overlap width will certainly be larger! Apply the tape with some initial tension. At a correct tension value, the width of the tape is reduced by ca. 1–2%. Control tape tension!
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