

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-13/0171
of 14 May 2019

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Corrosion protection system "ATIS Cableskin"

Product family
to which the construction product belongs

Corrosion protection system for load bearing cables

Manufacturer

Alpin Technik und Ingenieurservice GmbH
Plautstraße 80
04179 Leipzig
DEUTSCHLAND

Manufacturing plant

Alpin Technik und Ingenieurservice GmbH

This European Technical Assessment
contains

10 pages including 6 annexes which form an integral part
of this assessment

This European Technical Assessment is
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No 305/2011, on the basis of

EAD 200126-00-0302

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Specific part

1 Technical description of the product

The construction product is the corrosion protection system "ATIS Cableskin" for cables.

The corrosion protection system consists at least of two layers of butyl rubber tapes: a base layer with three-ply structure and a top layer with two-ply structure whose outer ply is made of a robust coloured and UV - stabilized PE-foil. These butyl rubber tapes are wrapped around the installed components with a minimum overlap of 50 % creating a 4-layer system with an average thickness of ca. 2.6 mm. In the overlapping areas a cold-welding of the tapes is achieved by interdiffusion of the butyl rubber molecules over the layer boundaries leading to a closed mechanical resistant tube-like sheath which avoids inadmissible access of water vapour and oxygen.

The application of the corrosion protection system can be done by means of a fully automated wrapping robot or with a hand-operated wrapping or by hand device.

Annex B1 shows a sample of the structure of the corrosion protection system in the free length.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The corrosion protecting system is intended to be used for load bearing components with round or oval cross-section such as cables, in particular bridge cables and other load bearing cables, as well as for other suitable structural parts like e.g. bracings, pipes, rods or convex bars.

It will be used as a long term corrosion protection system for internal and external applications as initial corrosion protection on new load bearing components as well as replacement or strengthening of already existing old corrosion protection systems.

The corrosion protection system "ATIS Cableskin" can also be used as coating for UV protection e.g. of a cable surface.

It is also applicable to prevent the leakage of cable filling material at the free cable length.

It can be used for more than one parallel cable also together with humidity removal systems where the remaining air space in and between the cables is exposed to dry gas (see Annex B5).

The intended use is specified in Annex A.

The performances given in Section 3 are only valid if the corrosion protection system is used in compliance with the specifications and conditions given in Annexes A and B1 to B5.

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the corrosion protection system "ATIS Cableskin" of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	method of assessment	Performance
Resistance to neutral salt spray for an exposure period in hours	EAD, clause 2.2.1	1440
Resistance to water condensation for an exposure period in hours	EAD, clause 2.2.2	720
Resistance to humid atmospheres containing sulphur dioxide for an exposure period in hours (30 cycles)	EAD, clause 2.2.3	720
Resistance to artificial weathering by Xenon radiation for an exposure period in hours	EAD, clause 2.2.4	2000
Resistance to artificial weathering by UV radiation for an exposure period in hours	EAD, clause 2.2.5	2000
Resistance to water absorption for an exposure period of 38 days	EAD, clause 2.2.6	< 3 g/m ² d

3.2 Safety in case of fire (BWR 2)

Essential characteristic	method of assessment	Performance
Reaction to fire	EAD, clause 2.2.7	Class E

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

For the products covered by this EAD the applicable European legal act is: Decision 2003/565/EC.

The system is 4 for any use except for uses subject to regulations on reaction to fire performance (see Annex V of Regulation (EU) No. 305/2011).

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Deutsches Institut für Bautechnik.

Issued in Berlin on 14 May 2019 by Deutsches Institut für Bautechnik

BD Dipl.-Ing. Andreas Kummerow
Head of Department

beglaubigt:
Schult

Annex A

A.1 Specification of intended use

A.1.1 Intended use

The corrosion protection system for load bearing components is suitable for high corrosion loads (corrosion category C5 according to EN ISO 12944-2:2017) as well as for the components surface protection against ultraviolet radiation and for protecting of the free cable length against the emission of cable filling materials. It can also be used for more than one parallel cable together with humidity removal systems using dry gas (see Annex B.5).

A.1.2 Installation

The execution of the corrosion protection system "ATIS Cableskin" is carried out according to the provisions of Alpin Technik und Ingenieurservice GmbH deposited with Deutsches Institut für Bautechnik. This also applies to the overlap of the butyl rubber tapes including of the tape ends and areas to be repaired (see Annexes B.1, B.2, B.3 and B.4) and also to the transitions to the anchorages.

All works are executed by Alpin Technik und Ingenieurservice GmbH or by companies with appropriate and valid training of Alpin Technik und Ingenieurservice GmbH. This training shall be documented.

A.1.3 Indications to the manufacturer

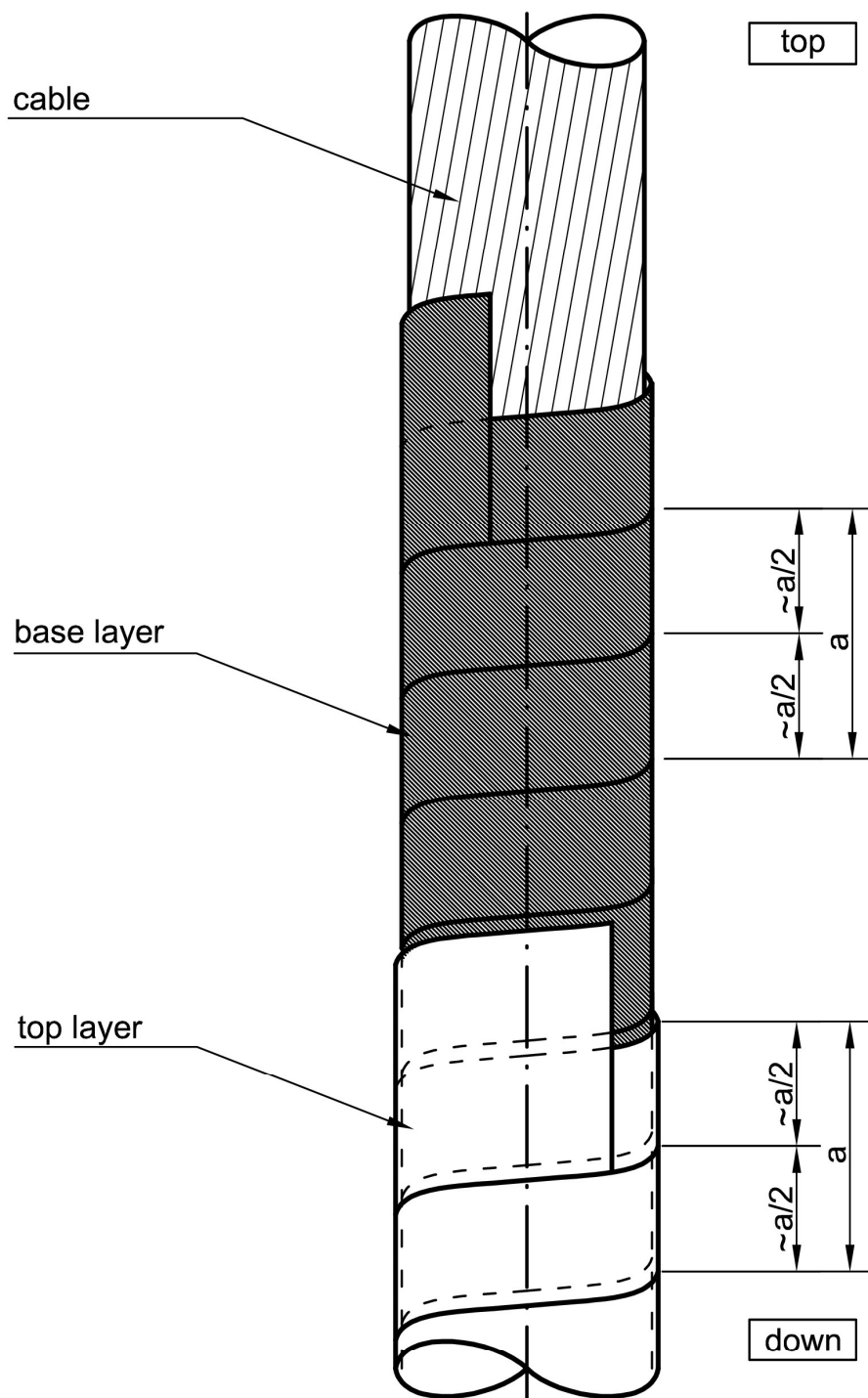
It is in the responsibility of the manufacturer to ensure that the information on the specific conditions in accordance with the provisions of this ETA (including Annexes referred to) is given to those who are concerned.

A.1.4 Packaging, transport and storage

For packaging, transport and storage of the butyl rubber tapes the instructions of the manufacturer of the tapes apply.

A.1.5 Inspection, repair

For inspecting the long-time behaviour of the corrosion protection system under environmental conditions control areas according Annex B.3 may be installed according to the regulations deposited with Deutsches Institut für Bautechnik. In case of damages of the corrosion protection system the repair works have to be executed according to Annex B.4 and the manual deposited with Deutsches Institut für Bautechnik.



material

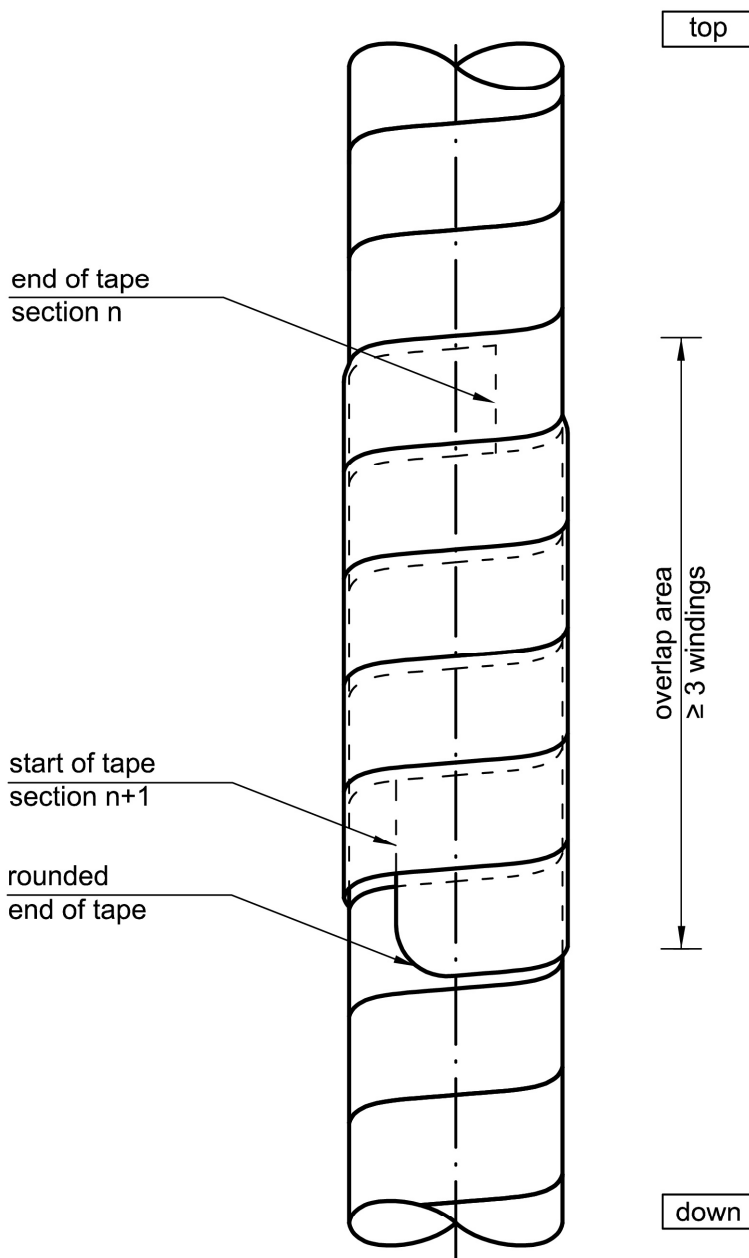
base layer: stabilized PE-carrier film, double-sided applied with butyl rubber, $t \geq 0.8$ mm

top layer: exterior stabilized PE-carrier film, coloured, one-sided inside with butyl rubber, gray, $t \geq 0.5$ mm

Corrosion protection system "ATIS Cableskin"

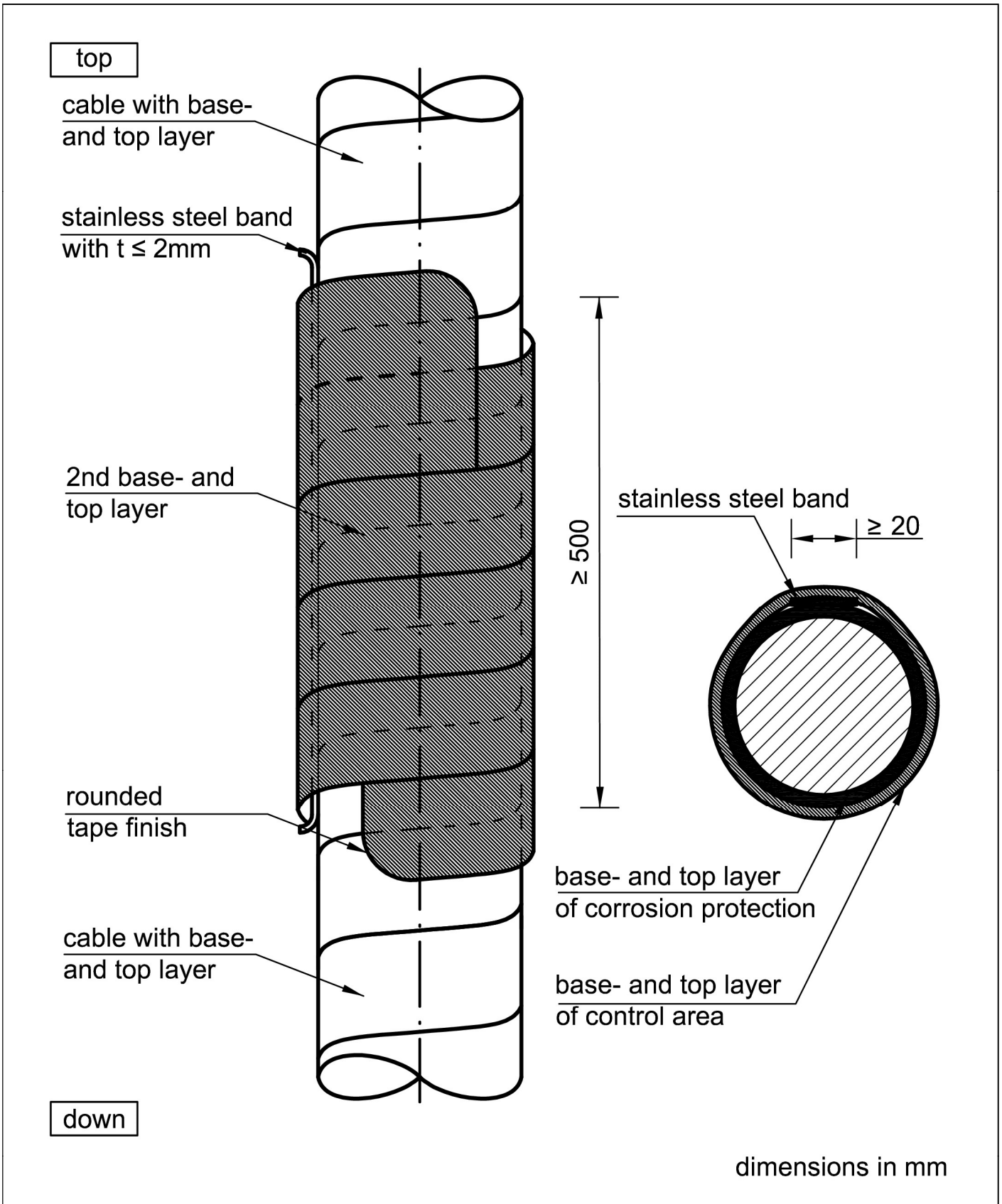
Taping on the free length

Annex B.1



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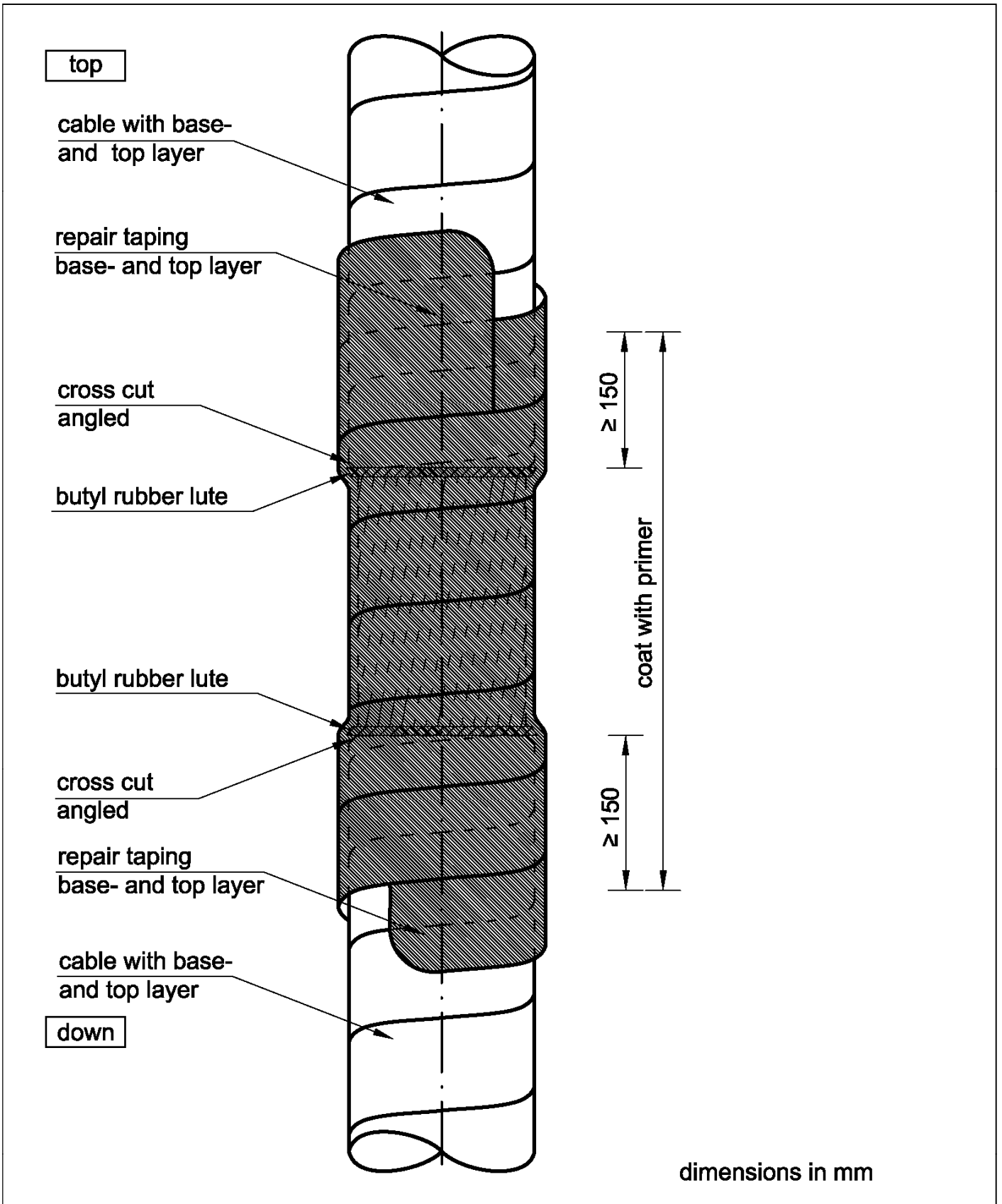
Corrosion protection system "ATIS Cableskin"	Annex B.2
Joint on the free length	



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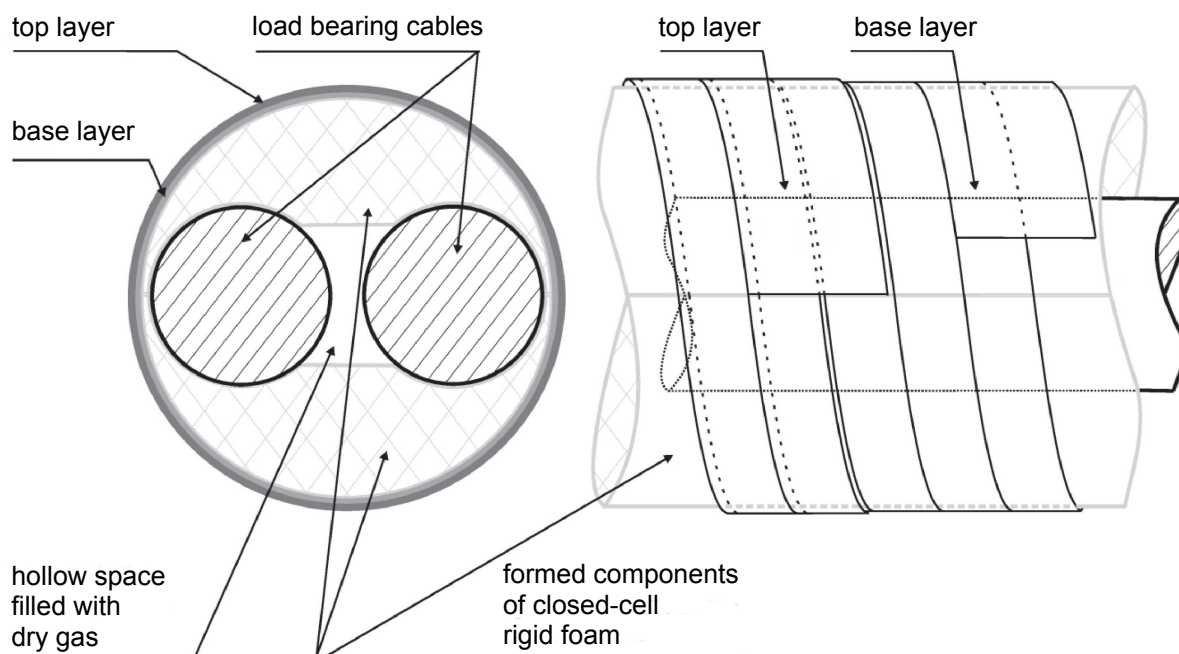
Corrosion protection system "ATIS Cableskin"	Annex B.3
Control area	

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Corrosion protection system "ATIS Cableskin"	Annex B.4
Repair area	



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Corrosion protection system "ATIS Cableskin"

Humidity removal system

Annex B.5