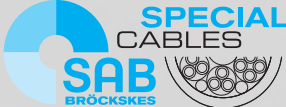


# CABLES FOR CRANE AND CONVEYOR APPLICATIONS



[www.sab-cable.com](http://www.sab-cable.com)








TRADITIONAL  
FAMILY BUSINESS

SINCE 1947

# Cables for Crane and Conveyor applications

## Content

Who we are .....	4
<b>Cables for lifting and crane systems</b>	
■ Spreader 722 Control cable hoisting cages in crane systems .....	5
■ Festoon 715 P PUR cable for flexible application in festoon systems .....	6
■ Festoon 716 CP PUR cable with overall copper screen for flexible application in festoon systems .....	7
<b>Reeling cables</b>	
■ DR 717 P Highflex 300/500 V .....	8
■ DR 718 CP Highflex 300/500 V with overall copper screen .....	9
■ DR 721 P 0,6/1 kV .....	10
■ DR 720 P Highflex 0,6/1 kV for higher mechanical stress .....	11
■ DR 730 P Highflex  0,6/1 kV for higher mechanical stress with UL/cUL recognition .....	12
■ DR 750 P Offshore 0,6/1 kV for offshore applications .....	13
■ DR 724 P Spreader 0,6/1 kV PUR Reeling cable for spreader application .....	14
<b>Technical Data</b>	
■ Installation instructions of reeling cables .....	15



## Family business in the third generation

**75** years of experience in cable and wire manufacturing as well as in temperature measurement technology turned a one-man business into a company with more than 550 employees. We prove our strength every year with more than 1500 special products according to customers' requirements. Each product is a new challenge for our creative technical team. We at **SAB** see ourselves as a manufacturer and a service provider – in the sense of true partnership and the greatest possible customer orientation.

Today, the quality of our products is known and appreciated in more than 100 countries around the world. In all product ranges, we are certified according to DIN EN ISO 9001. Furthermore, we have implemented an environmental management system for our company according to DIN EN ISO 14001, an occupational health and safety management system according to NLF/ILO-OSH and DIN ISO 45001, and an energy management system according to DIN EN ISO 50001.

And also for the future, our slogan is: **"WE CONTINUE!"**

FOUNDED:	1947 by Peter Bröckskes sen. an independent, medium-sized company.
CEO:	Peter Bröckskes and Sabine Bröckskes-Wetten
PLANT/LOCATION:	In Viersen (Lower Rhine) 110.000 m <sup>2</sup> company site.  Own manufacturing from copper conductor to outer sheath.  VDE proved burnchamber and laboratory within the company.
EMPLOYEES/WORKERS:	Approx. 430 at the plant in Viersen, 550 worldwide
YEARLY SALES:	Approx. 134 Mio. € worldwide
PRODUCTS:	Special Cables  Measurement Technology  Cable Harnessing
CERTIFICATES AND APPROVALS:	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  </div> <div style="flex: 2;"> <p>Quality management system acc. to DIN EN ISO 9001 for every manufacturing field</p> <p>Environmental management system acc. to DIN EN ISO 14001</p> <p>Occupational health and safety management acc. to NLF/ILO-OSH and DIN ISO 45001</p> <p>Energy management system acc. to DIN EN ISO 50001</p> </div> </div>



# Cables for lifting and crane systems

## Spreader 722

Control cable hoisting cages in crane systems



ERC

Marking for Spreader 722 07224225:

SAB BRÜCKSKES · D-VIERSEN · Spreader 722 42 G 2,5 mm<sup>2</sup>

**Application:** Cable for carriers for example spreaders with high mechanical stress and vertical cage operation.

### Construction:

<b>Conductor:</b>	bare copper strands
<b>Insulation:</b>	PVC
<b>Colour code:</b>	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
<b>Suspension unit:</b>	Armid braided with lead, 50 m of the suspended cable are supported by a 5 times safety calculation
<b>Stranding:</b>	cores are twisted to bundles with lead cord in the centre
<b>Wrapping:</b>	overlapping non-woven tape
<b>Stranding:</b>	bundle and lead cords twisted, suspension unit in the centre
<b>Wrapping:</b>	overlapping non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Testing voltage:</b>	core/core 2000 V
<b>Temperature range</b>	
<i>fixed laying:</i>	-20/+60 °C
<i>flexible application:</i>	-20/+60 °C
<i>max. allowed operating temperature at conductor:</i>	+70 °C
<i>short circuit temperature at conductor:</i>	+150 °C
<b>Tensile strength:</b>	max. 15 N/mm <sup>2</sup> x sum of all cable sections
<b>Recommended cage dimensions:</b>	cage diameter min. 30 x d, cage height approx. 45 x d
<b>Travel speed hoisting gear:</b>	max. 160 m/min.
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Weather resistance:</b>	appropriate for applications in dry, damp and wet rooms as well as in the open-air with a very good resistance against ozone, UV radiation and humidity

Due to the lead cord this cable isn't free of harmful substances acc. to RoHS directive of the European Union

### Outstanding features:



- for hoisting cage applications
- high breaking load of supporting unit
- oil resistant
- weather resistant

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 10% mm	copper figure kg/km	cable weight ≈ kg/km
07224810	48 G 1,00	32,1	460,8	1951
07222425	24 G 2,50	29,7	576,0	1660
07223025	30 G 2,50	32,9	720,0	2016
07223625	36 G 2,50	36,2	864,0	2567
07224225	42 G 2,50	39,2	1008,0	3177
07224825	48 G 2,50	41,9	1152,0	3556
07222035	20 G 3,50	30,9	633,6	1722
07222435	24 G 3,50	33,2	760,3	2073
07223035	30 G 3,50	37,0	950,4	2565
07223635	36 G 3,50	40,2	1140,5	3218

Other dimensions and colours are possible on request.

# Cables for lifting and crane systems

## Festoon 715 P

PUR cable for flexible application in festoon systems



Marking for Festoon 715 P 07150162:

SAB BRÖCKSKES · D-VIERSEN · Festoon 715 P 1x16.0 mm² CE and current meter marking



Marking for Festoon 715 P 07151825:

SAB BRÖCKSKES · D-VIERSEN · Festoon 715 P 18 G 2,5 mm² CE and current meter marking

**Application:** The Festoon 715 P cable is applied for high mechanical stress. It is particularly suitable for use in cable roller assemblies.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	TPE
<b>Colour code:</b>	single core black, from 2 conductors coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering with a suspension unit (single core cables without a suspension unit)
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 0,6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Min. bending radius:</b>	6 x d
<b>Continuous tensile strength:</b>	max. 15 N/mm² acc. to DIN VDE 0298 part 3 section 7.1
<b>Temperature range</b>	
<i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Continuous flexibility:</b>	very good
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

### Outstanding features:



- path feed rate in cable roller assemblies up to 240 m/min.
- very abrasion resistant
- halogen-free
- small outer diameter
- simple reeling operation permitted

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07150315	3 G 1,50	0,26	7,3	43,2	76
07150415	4 G 1,50	0,26	7,9	57,6	94
07150515	5 G 1,50	0,26	8,8	72,0	117
07150715	7 G 1,50	0,26	10,4	100,8	167
07151215	12 G 1,50	0,26	12,5	172,8	245
07151815	18 G 1,50	0,26	15,1	259,2	367
07152415	24 G 1,50	0,26	17,5	345,6	510
07153015	30 G 1,50	0,26	18,7	432,0	593
07150325	3 G 2,50	0,26	8,1	72,0	106
07150425	4 G 2,50	0,26	8,8	96,0	134
07150525	5 G 2,50	0,26	10,1	120,0	170
07150725	7 G 2,50	0,26	12,0	168,0	243
07151225	12 G 2,50	0,26	14,5	288,0	368
07151825	18 G 2,50	0,26	17,3	432,0	543
07152425	24 G 2,50	0,26	20,2	576,0	798
07153025	30 G 2,50	0,26	21,4	720,0	862
07150440	4 G 4,00	0,31	10,7	153,6	206
07150460	4 G 6,00	0,31	12,1	230,4	287
07150361	3 G 10,00	0,41	14,3	288,0	381
07150461	4 G 10,00	0,41	15,8	384,0	492

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07150561	5 G 10,00	0,41	17,3	480,0	604
07150162	1 x 16,00	0,41	8,7	153,6	179
07150362	3 G 16,00	0,41	17,5	460,8	564
07150462	4 G 16,00	0,41	19,1	614,4	754
07150562	5 G 16,00	0,41	21,8	768,0	942
07150163	1 x 25,00	0,41	10,1	240,0	264
07150463	4 G 25,00	0,41	23,7	960,0	1136
07150563	5 G 25,00	0,41	26,3	1200,0	1418
07150164	1 x 35,00	0,41	12,1	226,0	377
07150464	4 G 35,00	0,41	27,7	1344,0	1591
07150165	1 x 50,00	0,41	13,5	480,0	533
07150465	4 G 50,00	0,41	31,5	1920,0	2262
07150166	1 x 70,00	0,41	16,0	672,0	717
07150167	1 x 95,00	0,51	18,9	912,0	990
07150168	1 x 120,00	0,51	20,8	1152,0	1203
07150169	1 x 150,00	0,51	22,7	1440,0	1500
07150170	1 x 185,00	0,51	24,8	1776,0	1819
07150171	1 x 240,00	0,51	28,5	2304,0	2433
0715....	3 x 50,00 + 3 G 10,00	0,41	28,0	1728,0	1971

Other dimensions and colours are possible on request.

# Cables for lifting and crane systems

## Festoon 716 CP

PUR cable with overall copper screen for flexible application in festoon systems



Marking for Festoon 716 CP 07160162:

SAB BRÖCKSKES · D-VIERSEN · Festoon 716 CP 1x25.0 mm² CE and current meter marking



Marking for Festoon 716 CP 07161825:

SAB BRÖCKSKES · D-VIERSEN · Festoon 716 CP 18 G 2,5 mm² CE and current meter marking

**Application:** The Festoon 716 CP cable is applied for high mechanical stress. It is particularly suitable for use in cable roller assemblies.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	TPE
<b>Colour code:</b>	single core black, from 2 conductors coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering with a suspension unit (single core cables without a suspension unit)
<b>Wrapping:</b>	non-woven tape
<b>Screen:</b>	tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0,6/1 kV
<b>Testing voltage:</b>	core/core 4000 V core/screen 4000 V
<b>Min. bending radius:</b>	7,5 x d
<b>Continuous tensile strength:</b>	max. 15 N/mm <sup>2</sup> acc. to DIN VDE 0298 part 3 section 7.1
<b>Temperature range</b>	
fixed laying:	-50/+90 °C
flexible application:	-40/+90 °C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chem. resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Continuous flexibility:</b>	very good
<b>Weather resistance:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

### Outstanding features:



- path feed rate in cable roller assemblies up to 240 m/min.
- very good EMC characteristics
- very abrasion resistant
- halogen-free
- small outer diameter
- simple reeling operation permitted

item no.	no. of cores x cross section n x mm <sup>2</sup>	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07160215	2 x 1,50	0,26	7,5	49,1	81
07160715	7 G 1,50	0,26	11,2	152,5	202
07161215	12 G 1,50	0,26	13,3	234,0	286
07161815	18 G 1,50	0,26	16,3	358,2	443
07160425	4 G 2,50	0,26	10,2	141,8	177
07160525	5 G 2,50	0,26	11,1	167,1	206
07161225	12 G 2,50	0,26	15,7	356,9	424
07161825	18 G 2,50	0,26	19,0	546,4	643
07160440	4 G 4,00	0,31	12,1	206,2	259
07160460	4 G 6,00	0,31	14,2	292,5	366
07160461	4 G 10,00	0,41	17,7	494,9	600
07160462	4 G 16,00	0,41	22,0	749,7	903
07160163	1 x 25,00	0,41	11,0	294,0	306
07160463	4 G 25,00	0,41	25,8	1121,8	1302
07160464	4 G 35,00	0,41	29,8	1537,5	1790
07160165	1 x 50,00	0,41	14,6	577,2	607
07160465	4 G 50,00	0,41	33,4	2129,6	2460
07160166	1 x 70,00	0,41	17,1	783,1	802
07160167	1 x 95,00	0,51	20,0	1049,9	1095
07160168	1 x 120,00	0,51	21,9	1293,1	1311

Other dimensions and colours are possible on request.

# Reeling cables

## DR 717 P Highflex



Marking for DR 717 P Highflex 07170425:  
SAB BRÜCKSKES · D-VIERSEN · DR 717 P Highflex 4 G 2,5 mm² CE

**Application:** The DR 717 P Highflex is used for spring cables reels on stages and theatres.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire, <i>DMX-bus:</i> white/brown, green/yellow <i>IE Cat 5:</i> white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
<b>Stranding:</b>	specially adjusted layering around central suspension unit
<b>Inner sheath:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Supporting screen:</b>	high-tech yarn
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Outstanding features:



- reeling length up to 60 m
- extrem highly winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

### Technical data:

<b>Peak operating volatge:</b>	<b>item no. 07179001:</b> max. 500 V (DMX-bus) <b>item no. 07179002:</b> max. 125 V (IE Cat 5)	
<b>Nominal voltage:</b>	Uo/U 300/500 V (supply conductors)	
<b>Testing voltage:</b>	core/core 2000 V	
<b>Current-carrying capacity:</b>	acc. to VDE 0298-4	
<b>Min. bending radius for laying and installation (fixed laying): for repeated winding action (flexible): guided on pulleys (flexible):</b>	≤ 12 mm 3 x d / >12 mm 4 x d  6 x d  7,5 x d	
<b>Temperature range</b>	<b>item no. 07179001</b>	<b>item no. 07179002</b>
<i>with installation:</i>		0/+50 °C
<i>fixed laying:</i>	-50/+90 °C	-40/+70 °C
<i>flexible application:</i>	-40/+90 °C	-40/+70 °C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.	
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2	
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour	
<b>Tensile strength:</b>	with reference to VDE 0298-3 section 7.1	
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union	

item no.	no. of cores x cross section n x mm²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07170425	4 G 2,50	9,7	96,0	157	150	1345
07170440	4 G 4,00	11,7	153,6	239	240	1690
07171440	14 G 4,00	20,9	537,6	739	840	3200
07172040	20 G 4,00	23,3	768,0	1021	1200	3700
07172540	25 G 4,00	28,3	960,0	1318	1500	4200
07170460	4 G 6,00	13,4	230,4	333	360	1860
07171360	13 G 6,00	24,3	748,8	1013	1170	3400
07171860	18 G 6,00	25,7	1036,8	1306	1620	6000
07170470	4 G 10,0	17,1	384,0	559	600	2300
07170480	4 G 16,0	21,3	614,4	864	960	2800
07179001	14 G 4,00 + 2 x (2 x 0,25)C	22,4	575,4	794	840	2500
07179002	5 G 16,0 + 4 x 2 x 0,14	26,4	791,6	1163	1200	3000
07179013	25 G 4,00	min. 25,0 max. 28,0	960,0	1290	1500	2600

Other dimensions and colours are possible on request.  
Please mention the required winding length when placing the order.

● Please pay attention  
to the installation instructions  
on page 15!



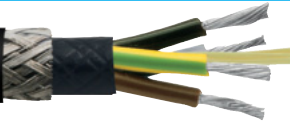
# Reeling cables

## DR 718 CP Highflex

with overall copper screen



SKES · D-VIERSEN · DR 718 CP Highflex 4 x 2,5 mm<sup>2</sup> CE



Marking for DR 718 CP Highflex 07180425:

SAB BRÜCKSKES · D-VIERSEN · DR 718 CP Highflex 4 x 2,5 mm<sup>2</sup> CE

**Application:** The DR 718 CP Highflex is used for spring cable reels on stages for example in theatres as well as control cable in crane arms.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering around central suspension unit
<b>Inner sheath:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Screen:</b>	tinned copper braiding
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Outstanding features:



- extrem highly winding and unwinding strength
- small cable weight
- good EMC characteristics



Also possible  
without inner sheath!

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Testing voltage:</b>	core/core 2000 V core/screen 2000 V
<b>Current-carrying capacity:</b>	acc. to VDE 0298-4
<b>Min. bending radius</b> for laying and installation (fixed laying): for repeated winding action (flexible): guided on pulleys (flexible):	5 x d 7,5 x d 10 x d
<b>Temperature range</b> fixed laying: flexible application:	-50/+90 °C -40/+90 °C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour
<b>Tensile strength:</b>	with reference to VDE 0298-3 section 7.1
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07182005	20 x 0,50	12,8	161,4	258	150	1600
07182505	25 x 0,50	14,9	192,7	331	187	1700
07182507	25 x 0,75	16,9	281,2	442	281	2000
07180410	4 x 1,00	8,0	62,2	103	60	1100
07181210	12 x 1,00	15,0	188,2	317	180	2000
07181810	18 x 1,00	14,5	237,2	348	270	2200
07182510	25 x 1,00	17,8	355,8	522	375	2400
07182610	26 x 1,00	17,8	365,4	533	390	2400
07180415	4 x 1,50	8,9	86,3	133	90	1340
07180515	5 x 1,50	10,2	120,8	175	112	1690
07180715	7 x 1,50	11,9	157,3	237	157	2150
07181215	12 x 1,50	16,9	274,0	419	270	2600
07181415	14 x 1,50	16,3	301,7	439	315	2600
07181615	16 x 1,50	16,3	330,5	451	360	2600
07181815	18 x 1,50	16,4	359,7	484	405	2600
07182415	24 x 1,50	18,2	463,3	618	540	2800
07183015	30 x 1,50	23,4	586,4	841	675	2900
07183715	37 x 1,50	22,2	681,1	893	832	3200
07180425	4 x 2,50	10,8	144,7	201	150	1345
07180525	5 x 2,50	11,9	176,5	248	187	2100
07180725	7 x 2,50	13,7	232,5	332	262	2500
07181225	12 x 2,50	19,9	418,0	610	450	2900
07181825	18 x 2,50	19,5	561,7	709	675	3450
07182425	24 x 2,50	23,6	730,4	950	900	2600
07183025	30 x 2,50	26,8	892,0	1187	1125	4200

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07183625	36 x 2,50	26,1	1035,8	1280	1350	5000
07184825	48 x 2,50	30,7	1353,0	1726	1800	6500
07185625	56 x 2,50	32,6	1547,8	1909	2100	7900
07180440	4 x 4,00	12,3	210,3	284	240	1690
07180540	5 x 4,00	13,7	256,5	346	300	2200
07180740	7 x 4,00	16,3	372,9	500	420	2600
07180460	4 x 6,00	13,7	302,9	388	360	1860
07180560	5 x 6,00	15,7	389,1	492	450	2300
07180760	7 x 6,00	18,9	518,7	690	630	2600
07180470	4 x 10,0	18,1	499,7	656	600	2900
07180570	5 x 10,0	20,3	609,5	808	750	3000
07180480	4 x 16,0	22,3	757,7	985	960	2800
07180580	5 x 16,0	24,9	926,6	1207	1200	3000
07180490	4 x 25,0	27,0	1131,6	1447	1500	3300
07180495	4 x 35,0	30,8	1542,9	1970	2100	3300
07180496	4 x 50,0	35,3	2147,7	2761	3000	3800

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention  
to the installation instructions  
on page 15!



Marking for DR 721 P 07210425:  
SAB BRÜCKSKES · D-VIERSEN · DR 721 P 4 G 2,5 mm<sup>2</sup> CE

**Application:** The DR 721 P is used for spring cable and motor cable reels, hoists, transport systems and farm vehicles with medium mechanical stress.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering
<b>Inner sheath:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Supporting screen:</b>	high-tech yarn
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Outstanding features:



- high winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0,6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Current-carrying capacity:</b>	acc. to VDE 0298-4
<b>Min. bending radius</b> <i>for laying and installation</i> <i>(fixed laying):</i>	6 x d
<i>for repeated winding action</i> <i>(flexible):</i>	10 x d
<i>guided on pulleys</i> <i>(flexible):</i>	12 x d
<b>Temperature range</b> <i>fixed laying:</i>	-50/+90 °C
<i>flexible:</i>	-40/+90 °C
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 und EN 60332-1-2
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chemical resistance:</b>	very good against acids, alkaline solutions, solvents and hydraulic liquids, etc.
<b>Weather resistance:</b>	very good
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour
<b>Tensile strength:</b>	acc. to VDE 0298-3 section 7.1
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07210415	4 G 1,50	8,8	57,6	116
07210515	5 G 1,50	9,6	72,0	140
07210715	7 G 1,50	11,7	100,8	203
07211215	12 G 1,50	16,4	172,8	339
07211815	18 G 1,50	16,3	259,2	427
07212415	24 G 1,50	19,6	345,6	571
07213615	36 G 1,50	22,1	518,4	798
07210425	4 G 2,50	10,2	96,0	168
07210525	5 G 2,50	11,2	120,0	205
07210725	7 G 2,50	13,6	168,0	297
07211225	12 G 2,50	19,4	288,0	507
07211825	18 G 2,50	19,4	432,0	634
07212425	24 G 2,50	23,6	576,0	854

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07213625	36 G 2,50	26,4	864,0	1196
07210440	4 G 4,00	12,4	153,6	256
07210460	4 G 6,00	14,4	230,4	363
07210560	5 G 6,00	15,6	288,0	438
07210470	4 G 10,0	17,9	384,0	585
07210480	4 G 16,0	22,4	614,4	905
07210580	5 G 16,0	25,0	768,0	1131
07210390	3 x 25,0			
	+ 3 G 6,00	24,2	892,8	1178
07210395	3 x 35,0			
	+ 3 G 6,00	28,0	1180,8	1568
07210396	3 x 50,0			
	+ 3 G 10,0	31,8	1728,0	2249

Other dimensions and colours are possible on request.  
Please mention the required winding length when placing the order.

● Please pay attention  
to the installation instructions  
on page 15!



Marking for DR 720 P Highflex 07200425:  
SAB BRÜCKSKES · D-VIERSEN · DR 720 P Highflex 4 G 2,5 mm² CE

**Application:** The DR 720 P Highflex is used for heavy appliances as for example motor cable reels hoists, transport systems, movable motors and farm vehicles with high mechanical stress.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering around central suspension unit
<b>Inner sheath:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Supporting screen:</b>	high-tech yarn
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Outstanding features:



- path feed rate up to 120 m/min.
- extrem highly winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0,6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Current-carrying capacity:</b>	acc. to VDE 0298-4
<b>Min. bending radius</b> <i>for laying and installation (fixed laying):</i>	≤ 12 mm 3 x d / >12 mm 4 x d
<i>for repeated winding action (flexible):</i>	6 x d
<i>guided on pulleys (flexible):</i>	7,5 x d
<b>Temperature range</b> <i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.
<b>Weather resistance:</b>	very good
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour
<b>Tensile strength:</b>	acc. to VDE 0298-3 section 7.1
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07200415	4 G 1,50	9,0	57,6	119	1340
07200515	5 G 1,50	9,8	72,0	142	1690
07200715	7 G 1,50	11,8	100,8	204	2150
07201215	12 G 1,50	16,6	172,8	359	2600
07201815	18 G 1,50	16,4	259,2	430	2600
07200425	4 G 2,50	10,4	96,0	170	1345
07200525	5 G 2,50	11,6	120,0	213	2100
07200725	7 G 2,50	13,8	168,0	299	2500
07201225	12 G 2,50	19,6	288,0	531	2900
07201825	18 G 2,50	19,7	432,0	641	3450
07202425	24 G 2,50	23,8	576,0	879	2700
07203025	30 G 2,50	26,6	720,0	1099	4200
07203625	36 G 2,50	26,7	864,0	1208	4750
07205025	50 G 2,50	32,4	1200,0	1739	6750

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07200440	4 G 4,00	12,4	153,6	255	1690
07201240	12 G 4,00	24,0	460,8	835	5000
07200460	4 G 6,00	14,8	230,4	369	1860
07200470	4 G 10,0	18,2	384,0	592	2300
07200480	4 G 16,0	22,7	614,4	915	2800
07200390	3 x 25,0				
	+ 3 G 6,00	24,3	892,8	1188	3300
07200490	4 G 25,0	26,9	960,0	1351	3300
07200395	3 x 35,0				
	+ 3 G 6,00	28,1	1180,8	1577	3300
07200495	4 G 35,0	31,5	1344,0	1893	3300
07200396	3 x 50,0				
	+ 3 G 10,0	31,9	1728,0	2264	3800

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention to the installation instructions on page 15!



# Reeling cables

## DR 730 P Highflex



Marking for DR 730 P Highflex 07300425:

SAB BRÖCKSKES · D-VIERSEN · DR 730 P Highflex 4 G 2,5 mm<sup>2</sup> AWM Style 21897 80°C AWM I/II A/B 80°C 600V FT1 FT2 CE

**Application:** The DR 730 P Highflex is used for heavy appliances as for example motor cable reels hoists, transport systems, movable motors and farm vehicles with high mechanical stress.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering around central suspension unit
<b>Inner sheath:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Supporting screen:</b>	high-tech yarn
<b>Sheath material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Technical data:

<b>Nominal voltage DIN VDE:</b>	U <sub>0</sub> /U 0,6/1 kV	
<b>Voltage UL:</b>	1000 V	
<b>Voltage cUL:</b>	600 V	
<b>Testing voltage:</b>	core/core 4000 V	
<b>Current-carrying capacity:</b>	acc. to VDE 0298-4	
<b>Min. bending radius for laying and installation (fixed laying):</b>	≤ 12 mm 3 x d / >12 mm 4 x d	
<b>for repeated winding action (flexible):</b>	6 x d	
<b>guided on pulleys (flexible):</b>	7,5 x d	
<b>Temperature range</b>	<b>DIN VDE</b>	<b>UL/cUL: up to +80°C</b>
<b>fixed laying:</b>	-50/+90 °C	
<b>flexible application:</b>	-40/+90 °C	
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, cUL FT1 FT2	
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.	
<b>Weather resistance:</b>	very good	
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour	
<b>Tensile strength:</b>	acc. to VDE 0298-3 section 7.1	
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union	

### Outstanding features:



- UL recognized - Style 21897
- cUL recognized
- path feed rate up to 120 m/min.
- extrem highly winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07300415	4 G 1,50	10,2	57,6	146	1340
07300515	5 G 1,50	11,0	72,0	169	1690
07300715	7 G 1,50	12,5	100,8	224	2150
07301215	12 G 1,50	16,9	172,8	381	2600
07301815	18 G 1,50	17,1	259,2	455	2600
07300425	4 G 2,50	11,3	96,0	194	1345
07300525	5 G 2,50	12,3	120,0	229	2100
07300725	7 G 2,50	14,0	168,0	308	2500
07301225	12 G 2,50	19,6	288,0	547	2900
07301825	18 G 2,50	19,6	432,0	650	3450
07302425	24 G 2,50	23,9	576,0	892	2700
07303625	36 G 2,50	26,9	864,0	1224	4200

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07300440	4 G 4,00	12,9	153,6	270	1690
07301240	12 G 4,00	24,0	460,8	835	5000
07300460	4 G 6,00	14,7	230,4	371	1860
07300470	4 G 10,0	18,0	384,0	608	2300
07300480	4 G 16,0	23,6	614,4	984	2800
07300390	3 x 25,0				
	+ 3 G 6,00	25,0	892,8	1244	3300
07300395	3 x 35,0				
	+ 3 G 6,00	28,3	1180,8	1620	3300
07300495	4 G 35,0	31,5	1344,0	1893	3300

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.



**Hybrid cable  
on request!**

**Please pay attention  
to the installation instructions  
on page 15!**

# Reeling cables

## DR 750 P Offshore

PUR reeling cable for offshore applications



Marking for DR 750 P Offshore 07500425:  
SAB BRÖCKSKES · D-VIERSEN · DR 750 P Offshore 4 G 2,5 mm<sup>2</sup> 0,6/1 kV CE

**Application:** The DR 750 P Offshore is used as reeling cable in offshore areas, for spring and motor cable reels in lifting and handling equipment on offshore platforms or ships.

### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering
<b>Inner sheath:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Supporting screen:</b>	high-tech yarn
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005) mat

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0,6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Min. bending radius</b>	
<i>fixed laying:</i>	5 x d
<i>flexible:</i>	10 x d
<i>for repeated winding action</i>	
<i>(flexible):</i>	10 x d
<i>guided on pulleys</i>	
<i>(flexible):</i>	15 x d
<b>Temperature range</b>	
<i>flexible:</i>	-40/+90 °C lower temperatures on request SAB
<b>Halogen and fluorine content:</b>	acc. to IEC 60754-1 + EN 60754-1
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>MUD resistance:</b>	very good - acc. to IEC 60092-350, IEC 61892-4, NEK TS 606
<b>Chemical resistance:</b>	very good against acids, alkaline solutions, solvents and hydraulic liquids, etc.
<b>Weather resistance:</b>	very good
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

### Outstanding features:



- suitable for offshore applications
- extrem highly winding and unwinding strength
- small outer diameter
- small cable weight
- flame retardant and self-extinguishing
- asbestos-free

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07500210	2 x 1,00	10,3	19,2	118	500
07500410	4 G 1,00	10,9	38,4	140	1100
07501210	12 G 1,00	18,6	115,2	410	2000
07500315	3 G 1,50	10,9	43,2	144	1000
07500415	4 G 1,50	11,6	57,6	167	1340
07500715	7 G 1,50	14,7	100,8	273	2150
07501215	12 G 1,50	20,0	172,8	510	2600
07501815	18 G 1,50	20,0	259,2	523	3375
07500325	3 G 2,50	11,7	72,0	181	1200
07500425	4 G 2,50	13,0	96,0	220	1345
07500440	4 G 4,00	14,4	153,6	296	2000
07500460	4 G 6,00	15,8	230,4	390	3000
07500461	4 G 10,0	19,0	384,0	611	5000
07500462	4 G 16,0	22,9	614,4	907	8000
07500463	4 G 25,0	27,0	960,0	1362	12500
07500464	4 G 35,0	30,8	1344,0	1804	17500
07500465	4 G 50,0	34,6	1920,0	2548	25000
07500466	4 G 70,0	41,2	2688,0	3449	35000

Other dimensions and colours are possible on request.  
Please mention the required winding length when placing the order.

● Please pay attention to the installation instructions on page 15!

# Reeling cables

## DR 724 P Spreader

PUR Reeling cable for spreader application



BKES · D-VIERSEN · DR 724 P Spreader 46 G 1,0 mm<sup>2</sup> CE



Marking for DR 724 P Spreader 07244610:

SAB BRÜCKSKES · D-VIERSEN · DR 724 P Spreader 46 G 1,0 mm<sup>2</sup> CE

**Application:** The DR 724 P Spreader is for use in reeling applications with heavy duty mechanical stress e.g. in motor driven drums in container cranes.

### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	special polymer
<b>Colour code:</b>	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
<b>Stranding:</b>	specially adjusted layering around central Aramid suspension unit
<b>Inner sheath:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Torsion protecting net:</b>	Aramid
<b>Sheath material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Sheath colour:</b>	black (RAL 9005)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 0.6/1 kV
<b>Testing voltage:</b>	core/core 4000 V
<b>Min. bending radius</b> <i>for laying and installation</i> <i>(fixed laying):</i>	5 x d
<i>for repeated winding action</i> <i>(flexible):</i> <i>guided on pulleys</i> <i>(flexible):</i>	7,5 x d 10 x d
<b>Temperature range</b> <i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Fire performance:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Oil resistance:</b>	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.
<b>Weather resistance:</b>	very good
<b>Sunlight resistance:</b>	very good - enhanced due to black sheath colour
<b>Tensile strength:</b>	acc. to VDE 0298-3 section 7.1
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union

### Outstanding features:



- path feed rate up to 240 m/min.
- extrem highly winding and unwinding strength
- for high mechanical stress in reeling processes
- small outer diameter
- small cable weight
- flame retardant and self-extinguishing

item no.	no. of cores x cross section n x mm <sup>2</sup>	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength central suspension unit max. kN
07244610	46 G 1,00	28,2	441,6	992	25
07244910	49 G 1,00	30,7	470,4	1130	25
07242425	24 G 2,50	24,3	576,0	908	25
07243025	30 G 2,50	28,1	720,0	1199	25
07243625	36 G 2,50	32,5	864,0	1473	25
07244225	42 G 2,50	35,8	1008,0	1770	25
07244425	44 G 2,50	37,0	1056,0	1877	25
07245625	56 G 2,50	45,7	1344,0	2665	25

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention  
to the installation instructions  
on page 15!



## Installation instructions of reeling cables

### ■ The trouble-free and long service life of reeling cables requires the adherence to certain installation guidelines

The cable shall be wound directly from the supplied drum to the reeling drum. The complete unwinding of the cable isn't necessary. A straight torsion-free guiding has to be observed. Equally the cable has to be fixed and connected torsion-free. The indicated min. bending radius has to be adhered to.

In case of complete extension of the cable at least 2 windings shall remain on the reeling drum. For fixing the other cable end Kellm grips or large surface clamp connections can be used.

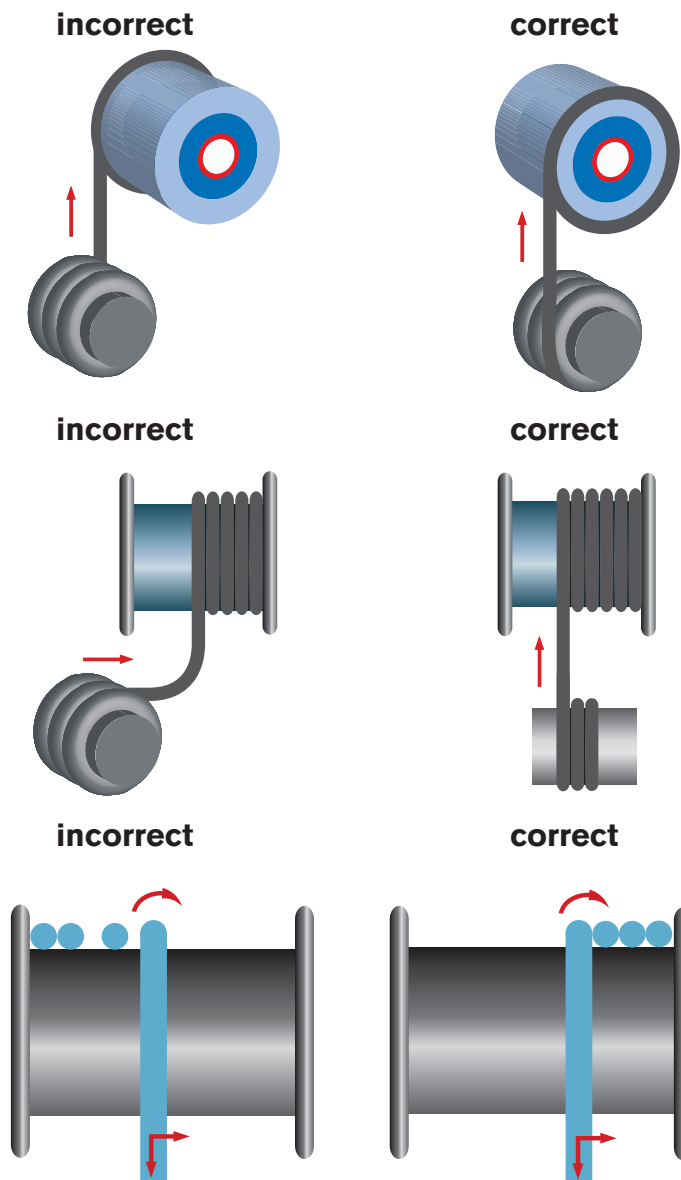
The installation of reeling cables has to be done carefully. They have to be protected against external damage during installation and operation.

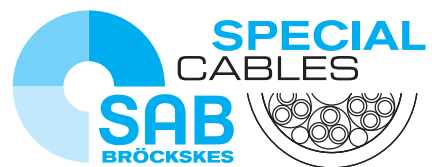
The start of winding of reeling cables on cylinder drums shall be made in stranding direction. Cables with right stranding direction (Z-lay) shall be operated to the right side and vice versa. If the stranding direction isn't known, please contact our technical support for any information.

Without special notice in our catalogue, the tensile stress of the copper conductors shall not exceed  $15 \text{ N/mm}^2$  (DIN VDE 0298 part 3). In case of higher tensile stress, we recommend to contact our technical support to align the cable construction to the requirements. The max. allowed limit deviations of the tensile stress are to be understood as the sum of the static and dynamic stress.

Reeling cables are generally not appropriate for torsion stress. During operation, however, torsion stress can't be avoided. As a consequence the exceeding of the limit values (generally  $> \pm 25^\circ/\text{m}$ ) lead to a considerable reduction of service life.

In case of undercutting the smallest allowed min. bending radius, the service life of the cable is reduced.





**SAB** Bröckskes GmbH & Co. KG

Grefrather Str. 204 - 212 b

41749 Viersen · GERMANY

Tel.: +49/2162/898-0

Fax: +49/2162/898-101

[www.sab-cable.com](http://www.sab-cable.com)

[info@sab-broeckskes.de](mailto:info@sab-broeckskes.de)