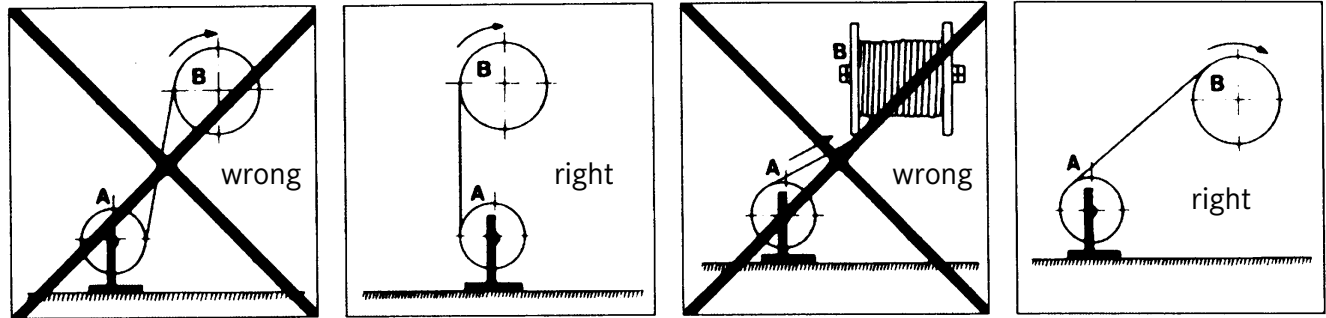


T19 Appendix
Selection Table

T19: Cable laying guidelines for cables and leads



Unreeing and dereeling of cables

Cables must be selected according to the laying and operating conditions involved. They must be protected against mechanical, thermal, or chemical effects, and against penetration of moisture from the cable ends. Insulated power cables must not be laid underground. Temporary covering of tough rubber sheathed cable NSSHÖU or cable runs with earth, sand or similar, for example on construction sites, is not deemed to constitute underground laying.

Cables ties or supports must not cause any damage to fixed wiring and cables. If cables or wires running horizontally along walls or ceilings are fastened with clips the following reference figures apply for the clip spacing:

For non-reinforced cables and wiring, 20 x cable diameter.

These spacings also apply for mounting positions where installation is on cable trays and staging. For vertical installation the clip spacings can be widened, depending on the type of cable or clip involved.

Flexible cables (e.g. ÖLFLEX® cables, UNITRONIC® cables) must be installed with stack when connected to mobile equipment and must be protected against twisting and buckling. The outer sheathing of cables must not be damaged at

the feed points, or by the strain relief devices. Flexible PVC cables in the standard versions are not designed for open air use.

Flexible rubber-sheathed cables (e.g. ÖLFLEX® CRANE cables) are only suitable for permanent use in the open air if the outer sheathing is based generally on a compound of polychloroprene (NEOPRENE®). Special cables must be used for permanent underwater use.

Thermal stresses

The temperature limits for the respective types of cables are listed in the relevant Technical Data. The upper temperature limits must not be exceeded as a result of heat built-up in the cables or the ambient thermal conditions. The lower limits denote the lowest permissible ambient temperature.

Tensile stresses

The tensile stress imposed on the conductor should be as low as possible. The following tensile stresses for the conductor must not be exceeded in the case of cables:

- Flexible cables 15 N/mm² during installation of cables, subjected for flexible use only. Screening, concentric conductors and divided protective conductors not being included in the above figures. In the case of cables subjected to dy-

namic stresses in operation, e.g. in crane installations involving high rates of acceleration of power chain systems subject to frequent movement, suitable measures must be taken, e.g. increased bending radii in the individual case. Due account must be taken of the possibility of service life being reduced.

- Cables for static usage
When laying permanent cables 50 N per mm² of conductor cross-section;
- Fibre optical, BUS, LAN and Industrial Ethernet cables
Please take into consideration its individual tensile strengths limitations. These values are given at products datasheet, or on demand.

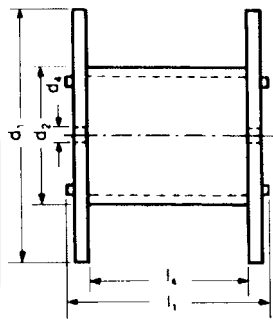
For more informations: see tables T3, T4 and T5 in this catalogue.

Neoprene® is a registered trademark of DuPont de Nemour

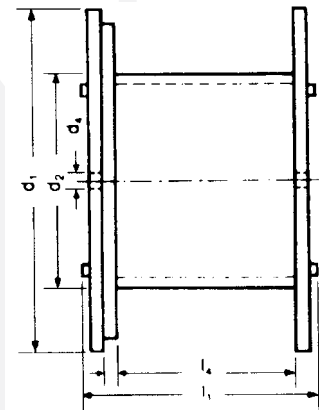
T19: Drum capacities for polymer-insulated cables in m according to DIN 46391

Drum number	Cable-Ø mm										
	6	9	12	15	20	25	30	40	50	60	80
71	2024	892	468	297	165	-	-	-	-	-	-
81	2755	1152	643	430	219	151	-	-	-	-	-
91	-	2202	1206	749	402	285	162	-	-	-	-
101	-	-	1540	1000	576	365	220	-	-	-	-
121	-	-	-	1991	1139	688	450	249	-	-	-
141	-	-	-	2479	1352	839	564	327	-	-	-
161	-	-	-	-	2435	1608	1028	549	319	-	-
181	-	-	-	-	-	1867	1197	640	373	256	-
201	-	-	-	-	-	2522	1583	812	558	296	163
221	-	-	-	-	-	-	2383	1328	678	566	278
250	-	-	-	-	-	-	-	1892	1107	699	363

Up to drum size 10 with external anchor point



From drum size 12 upwards with internal anchor point



TK 61.2 Wooden drum

Drum number	Drum size	Diameter in mm			Width in mm		Max. load kg	Weight kg
		d ₁	d ₂	d ₄	l ₁	l ₄		
071	07	710	355	80	520	400	250	25
081	08	800	400	80	520	400	400	31
091	09	900	450	80	690	560	750	47
101	10	1000	500	80	710	560	900	71
121	12	1250	630	80	890	670	1700	144
141	14	1400	710	80	890	670	2000	175
161	16/8	1600	800	80	1100	850	3000	280
181	18/10	1800	1000	100	1100	840	4000	380
201	20/12	2000	1250	100	1340	1045	5000	550
221	22/14	2240	1400	125	1450	1140	6000	710
250	25/14	2500	1400	125	1450	1140	7500	875
251	25/16	2500	1600	125	1450	1130	7500	900
281	28/18	2800	1800	140	1635	1280	10000	1175

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ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
SILVYN®
FLEXIMARK®
ACCESSORIES
APPENDIX