



## Technical data

- Halogen-free single cores with increased heat resistance
- **Temperature range**  
flexing -35 °C to +120 °C  
fixed installation -55 °C to +145 °C
- **Nominal voltage**  
U<sub>0</sub>/U 300/500 V up to 1 mm<sup>2</sup>  
U<sub>0</sub>/U 450/ 750 V from 1,5 mm<sup>2</sup>  
for fixed and protected installation  
U<sub>0</sub>/U 600/1000 V from 1,5 mm<sup>2</sup>
- **Test voltage** 3500 V
- **Minimum bending radius**  
flexing 12,5x cable ø  
fixed installation 4x cable ø
- **Caloric load values**  
see Technical Informations
- **Power ratings table**  
see Technical Informations
- **Approval**  
Germanischer Lloyd

## Cable structure

- Tinned Cu wires, according to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Core insulation of polyolefin-copolymer, cross-linked
- Core colours see table

## Tests

- **Flame test (unit flame test)** to VDE 0482-332-3, BS 4066 part 3/ DIN EN 60332-3-22, IEC 60332-3-22 (equivalent DIN VDE 0472 part 804 test method C)
- **Flame test (cable)** to VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2 (equivalent DIN VDE 0472 part 804 test method B)
- **Corrosiveness of combustion gases** according to VDE 0482 part 267/ DIN EN 50267-2-2/ IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- **Halogen-free** according to VDE 0482 part 267/ DIN EN 50267-2-1/ IEC 60754-1 (equivalent DIN VDE 0472 part 815)
- **Smoke density** to VDE 0482 part 268-1 and 2, test method C, IEC 61034-1/61034-2, HD 606 and BS 7622 part 1 and 2 (DIN VDE 0472 part 816)

## Properties

- Lower propagation of fire
- Low development of smoke and fumes
- Good abrasion and notch resistance
- Good resistance to oils and weathering
- Resistant to UV radiation and ozone
- Resistant to soldering temperatures
- Thermal class B
- These single-core cables are resistant to melting, even when in contact with a soldering iron at temperatures of between 300 °C and 380 °C, because of the cross-linking for the insulation material
- Due to the high temperature profile the cross-section of conductor can under certain circumstances be reduced, hereby enabling a saving in space requirement and weight
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Application

These temperature resistant single-core cables are used for the internal wiring of lighting fixtures, heaters, electrical machinery, switching systems and distributors in equipment and plant and machinery, suitable for installation on, in and beneath plaster, in closed installation ducts, as well as for traffic systems and outdoor applications. These cables are not approved for direct routing on racks, gutters or tanks. For a protected installation, these cables may be used at a nominal voltage of up to 1000 V alternating current or a direct current up to 750 V when earthed. The maximum operating d.c. voltage used in rail vehicles shall not exceed 900 V when earthed. These halogen-free single core cables are characterised by their amazingly high long-time resistance to temperature and feature among the leading halogen-free, flame resistant products in the world. These single core cables significantly contribute to safety and the environment.

☑ The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Cross-section mm <sup>2</sup> approx. RAL	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	black	gn-ye	brown	red	white	grey	vio	dk-bu	ye	Beige	lt-bu	og	green	2-col.
Part no. 0,25	1,4 - 1,8	2,4	4,0	50999	50998	51071	51072	51073	51074	51075	51079	51076	51164	51070	51077	51078	51165
Part no. 0,33	1,5 - 1,9	3,2	5,0	51167	51166	51169	51170	51171	51172	51173	51177	51174	51178	51168	51175	51176	51179
Part no. 0,5	1,7 - 2,1	4,8	7,0	51281	51280	51283	51284	51285	51286	51287	51291	51288	51292	51282	51289	51290	51293
Part no. 0,75	2,0 - 2,4	7,2	11,0	51295	51294	51297	51298	51299	51300	51301	51305	51302	51306	51296	51303	51304	51307
Part no. 1	2,3 - 2,7	9,6	14,0	51309	51308	51311	51312	51313	51314	51315	51319	51316	51320	51310	51317	51318	51321
Part no. 1,5	2,7 - 3,1	14,4	20,0	51323	51322	51325	51326	51327	51328	51329	51333	51330	51334	51324	51331	51332	51335
Part no. 2,5	3,3 - 3,7	24,0	30,0	51337	51336	51339	51340	51341	51342	51343	51347	51344	51348	51338	51345	51346	51349
Part no. 4	4,1 - 4,5	38,0	47,0	51351	51350	51353	51354	51355	51356	51357	51361	51358	51362	51352	51359	51360	51363
Part no. 6	4,75 - 5,25	58,0	72,0	51365	51364	51367	51368	51369	51370	51371	51375	51372	51376	51366	51373	51374	51377
Part no. 10	6,0 - 6,6	96,0	120,0	51379	51378	51381	51382	51383	51384	51385	51389	51386	51390	51380	51387	51388	51391

Continuation ▶

# HELUTHERM® 145 flexible, cross-linked, halogen-free



Cross-section mm² approx. RAL	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	black	gn-ye	brown	red	white	grey	vio	dk-bu	ye	Beige	lt-bu	og	green	2-col.
Part no. 16	7,25 - 7,75	154,0	182,0	51420	51419	51422	51423	51424	51425	51426	51430	51427	51431	51421	51428	51429	51432
Part no. 25	9,35 - 9,85	240,0	272,0	51434	51433	51436	51437	51438	51439	51440	51444	51441	51445	51435	51442	51443	51446
Part no. 35	10,3 - 11,1	336,0	371,0	51448	51447	51450	51451	51452	51453	51454	51458	51455	51459	51449	51456	51457	51460
Part no. 50	12,6 - 13,4	480,0	530,0	51462	51461	51464	51465	51466	51467	51468	51472	51469	51473	51463	51470	51471	51474
Part no. 70	14,7 - 15,4	672,0	730,0	51476	51475	51478	51479	51480	51481	51482	51486	51483	51487	51477	51484	51485	51488
Part no. 95	16,9 - 17,7	912,0	964,0	51490	51489	51492	51493	51494	51495	51496	51500	51497	51501	51491	51498	51499	51502
Part no. 120	18,2 - 19,2	1152,0	1235,0	51504	51503	51506	51507	51508	51509	51510	51514	51511	51515	51505	51512	51513	51516
Part no. 150	20,8 - 22,0	1440,0	1523,0	51518	51517	51520	51521	51522	51523	51524	51528	51525	51529	51519	51526	51527	51530
Part no. 185	23,0 - 24,2	1776,0	1850,0	51532	51531	51534	51535	51536	51537	51538	51542	51539	51543	51533	51540	51541	51544
Part no. 240	26,1 - 27,3	2304,0	2432,0	51546	51545	51548	51549	51550	51551	51552	51556	51553	51557	51547	51554	51555	51558

Dimensions and specifications may be changed without prior notice. (RK01)