



Cable Protection Systems





3.1 Protective Tubing

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- suitable
- of limited suitability
- ++ very good
- + good
- o limited

These details are only rough guide values. They should be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

Type	Page	Material	Operating Temperature [°C]
Protective Cable Cover			
Helawrap HWPP	240	PP	-60 °C to +110 °C, Intermittent +140 °C
Helawrap HWPA-V0	241	PA6V0	-40 °C to +90 °C, Intermittent +120 °C
Helawrap Accessories	242	PA66HIRHS	-40 °C to +105 °C
Spiral Binding			
SBPE	244	PE	-60 °C to +90 °C, intermittent +120 °C
SBPEFR	244	PEFR	-60 °C to +70 °C, Intermittent +105 °C
SBPA	244	PA6	-60 °C to +95 °C, intermittent +130 °C
SBPAV0	244	PA6V0	-60 °C to +95 °C, intermittent +130 °C
SBPTFE	244	PTFE	-60 °C to +260 °C, intermittent +350 °C
SPS	246	PP	-30 °C to +100 °C
SPF	246	PP	-30 °C to +100 °C
Flexible Cable Support			
Heladuct HTC	247	PP	-20 °C to +70 °C
Convoluted Tubing			
FCT	248	PA6	-40 °C to +120 °C, Intermittent +150 °C
CTC Clips	249	PA66HIRHS	-40 °C to +105 °C
Flexiguard	250	PVC	-20 °C to +70 °C, Intermittent +80 °C
Helaguard	251	PUR	-40 °C to +90 °C, Intermittent +125 °C
NV, TV and UH Fittings	252,253	PP	-35 °C to +80 °C
Helagaine Braided Sleaving			
HEGP	254	PET	-50 °C to +150 °C, Intermittent +220 °C
HEGPX	254	PET	-50 °C to +150 °C, Intermittent +220 °C
HEGPV0	255	PBTV0	-50 °C to +150 °C, Intermittent +200 °C
HEGPV0X	255	PBTV0	-50 °C to +150 °C, Intermittent +200 °C
HEGPA66	256	PA66	-60 °C to +150 °C, Intermittent +200 °C
HEGSAS	257	PET	-50 °C to +150 °C
HEGEMIP	258	CU, PET	-40 °C to +175 °C, Intermittent +200 °C
HEGEMIPV0	259	CU, PBT	-40 °C to +175 °C, Intermittent +200 °C
HLB	260	PET	-50 °C to +150 °C, Intermittent +200 °C
HELAHOOK			
HELAHOOK	261	PET	-50 °C to +150 °C

Resistance

[illegible]

Possible applications

[illegible]

Sample applications

[illegible]

- suitable
- of limited suitability
- ++ very good
- + good
- o limited

These details are only rough guide values. They should be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

Type	Page	Material	Operating Temperature [°C]
Grommet Strip			
G51P	265	PE	-30 °C to +80 °C Continuous, (+120 °C for 200 h)
G51N	265	PA6	-60 °C to +95 °C Continuous, (+130 °C for 200 h)
G51T	265	PTFE	-60 °C to +260 °C Continuous, (+350 °C for 200 h)
Beading PVC	263	PVC	-65 °C to +105 °C
Grommets			
Protective Push On Caps and Elbow Grommets PVC	266	PVC	-30 °C to +60 °C
Protective Push On Caps and Elbow Grommets PE	266	PE	-10 °C to +70 °C
Bend Protection Grommets PVC	268	PVC	-30 °C to +60 °C
Strain Protection Grommets PVC	270	PVC	-30 °C to +60 °C
Strain Protection Grommets HV - Helvin 243 / 3	271	HV	-30 °C to +60 °C
Edge Protection Grommets PVC	272	PVC	-30 °C to +60 °C

Hardness

[illegible]

Resistant properties

						UV light/ozone
				+	+	
				O	+	Oils and greases
				++	++	
				+	+	
					+	Solvents
					++	
					+	Fuels
					++	
					O	Moisture
					+	
					++	Flammability
					+	
	+					
	+	O				
	+	+	+			
	+	O	O			
	+	O	O	O		
	+	O	O	O	++	
	+	O	O	O	++	
	+	O	O	O	++	
	+	O	O	O	+	

General applications

[illegible]

Specific applications

[illegible]

The Helawrap Cable Management System Helawrap HWPP/HWPA-V0

Features and Benefits

Helawrap is the ideal solution for bundling and protecting cables and wires in industrial as well as in home or office environments. Thanks to its special profile and handy applicator tool, Helawrap can be applied rapidly and effortlessly. The unique design allows the user to branch off cable at any point along the cover with ease. Helawrap can be removed and re-applied as often as required.

Helawrap is available in several colours, a large range of sizes covering most standard applications and in two durable materials. A handy applicator tool is always included.

Application

Helawrap is used to bundle and protect cable and wires in the electrical industry, panel building as well as machine, automotive and truck manufacturing. Helawrap in 25 metre lengths is the time-saving solution for industrial applications. Due to its excellent flame-retardant properties, Helawrap Polyamide 6 V0 is the product of choice wherever fire protection is essential, for example in mass transit.

Helawrap in practical 2 metre lengths is designed for domestic and office use. It puts an end to the cable chaos associated with PC's, TV's and Hi-Fi systems.



Complete cable management for home and office.



Helawrap, the fast and easy solution to your cable chaos, available in 2 sizes and 3 colours!

Technical Table

Article-No.	Type	Colour	Bundle Ø max.	Wall (WT)	Application Tool
HWPP 2m lengths					
161-64204	HWPP16L2	Black (BK)	16	0.80	HAT16
161-64205	HWPP16L2	Grey (GY)	16	0.80	HAT16
161-64206	HWPP16L2	Silver (SR)	16	0.80	HAT16
161-64404	HWPP25L2	Black (BK)	27	1.05	HAT25
161-64405	HWPP25L2	Grey (GY)	27	1.05	HAT25
161-64406	HWPP25L2	Silver (SR)	27	1.05	HAT25

All dimensions in mm. Subject to technical changes.



Insert one or more cables into the insertion slot of the applicator tool.



Place the applicator tool in one end of the Helawrap cable cover.



Simply slide the applicator tool through the Helawrap cover.

Material Data		
RoHS	Material	Polyamide 6 V0 (PA6V0)
	Operating Temperature	-40 °C to +90 °C, Intermittent +120 °C
	Flammability	UL94 V0



Material Data		
RoHS	Material	Polypropylene (PP)
	Operating Temperature	-60 °C to +110 °C, Intermittent +140 °C
	Flammability	UL94 HB



Cables can be branched off at any point for better, more flexible protection.

Technical Table

Article-No.	Type	Material	Colour	Bundle Ø max.	Wall (WT)	Application Tool
HWPP 25m lengths						
161-64101	HWPP8	PP	Black (BK)	9	0.75	HAT8
161-64102	HWPP8	PP	Grey (GY)	9	0.75	HAT8
161-64103	HWPP8	PP	Silver (SR)	9	0.75	HAT8
161-64104	HWPP8	PP	White (WH)	9	0.75	HAT8
161-64201	HWPP16	PP	Black (BK)	16	0.80	HAT16
161-64202	HWPP16	PP	Grey (GY)	16	0.80	HAT16
161-64203	HWPP16	PP	Silver (SR)	16	0.80	HAT16
161-64207	HWPP16	PP	White (WH)	16	0.80	HAT16
161-64301	HWPP20	PP	Black (BK)	21	0.95	HAT20
161-64302	HWPP20	PP	Grey (GY)	21	0.95	HAT20
161-64303	HWPP20	PP	Silver (SR)	21	0.95	HAT20
161-64304	HWPP20	PP	White (WH)	21	0.95	HAT20
161-64401	HWPP25	PP	Black (BK)	27	1.05	HAT25
161-64402	HWPP25	PP	Grey (GY)	27	1.05	HAT25
161-64403	HWPP25	PP	Silver (SR)	27	1.05	HAT25
161-64407	HWPP25	PP	White (WH)	27	1.05	HAT25
161-64501	HWPP30	PP	Black (BK)	32	1.30	HAT30
161-64502	HWPP30	PP	Grey (GY)	32	1.30	HAT30
161-64503	HWPP30	PP	Silver (SR)	32	1.30	HAT30
161-64504	HWPP30	PP	White (WH)	32	1.30	HAT30
HWPV-V0 25m lengths						
161-63101	HWPVAV08	PA6V0	Black (BK)	9	0.75	HAT8
161-63201	HWPVAV016	PA6V0	Black (BK)	16	0.85	HAT16
161-63301	HWPVAV020	PA6V0	Black (BK)	21	0.95	HAT20
161-63401	HWPVAV025	PA6V0	Black (BK)	27	1.05	HAT25
161-63501	HWPVAV030	PA6V0	Black (BK)	32	1.30	HAT30

All dimensions in mm. Subject to technical changes.

Helawrap Accessory Set HWClips and HWBase

Features and Benefits

The Helawrap accessory set HWClip and HWBase is a family of retaining clips for the Helawrap Cable Management System.

The applications for this system are almost unlimited. Each clip size sits snugly around the Helawrap cable cover and holds it firmly. Thanks to the innovative coupling system, each clip can be joined to a mounting plate or another clip of any size. Many clips can be linked together and each can turn freely. As a result, any number of differing cable sizes can be bundled together, organised and protected flexibly and efficiently. The clips can be easily released and re-used. The R1 strap can be stretched over larger clips to provide tight hold in rugged industrial applications.

With the highly adaptable mounting plate, cables can be protected alongside most existing structures and installations. The plate can be fixed either with screws, with cable ties threaded through or around the base of the plate, or with an adhesive to provide a long-lasting hold.

Application

Helawrap clips and mounting plates can be linked into chains to bundle, protect and fix any number of cables on industrial machines. They can also be used in wiring cabinets, particularly in the door area where movement is a requirement. Helawrap accessories are also used to manage cables in the office or home.



The Helawrap accessory set for bundling, fixing and protecting multiple cable runs.

Material Data		
Material	Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)	
Operating Temperature	-40 °C to +105 °C	
Flammability	UL94 HB	

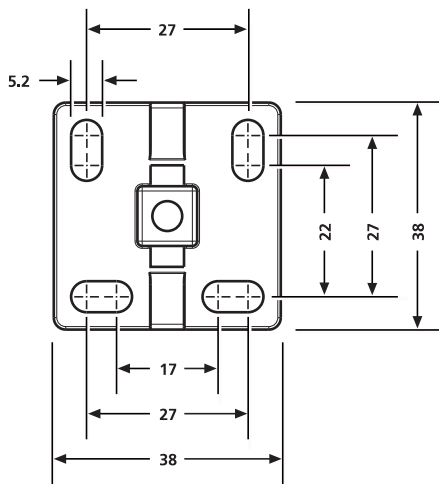


Multiple clips can be joined. Clips swivel freely.

For secure hold, R1 loop can be used (for HWClip25 and HWClip30 only).

Technical Table				
Article-No.	Type	Ø D	for Helawrap size	Colour
HWClips				
161-64002	HWCLIP08	9	8	Black (BK)
161-64004	HWCLIP16	15	16	Black (BK)
161-64006	HWCLIP20	20	20	Black (BK)
161-64008	HWCLIP25	25	25	Black (BK)
161-64010	HWCLIP30	31	30	Black (BK)
201-20010	R1	—	—	Black (BK)

All dimensions in mm. Subject to technical changes.



Helawrap HWBase/HWBBaseA

Technical Table			
Article-No.	Type	Adhesive	Colour
161-64012	HWBASEA	Acrylate with base of polyurethane foam	Black (BK)
161-64014	HWBASE	—	Black (BK)

All dimensions in mm. Subject to technical changes.



Protecting and fixing cables with the Helawrap cable cover and accessory set, for instance in wiring cabinets.

Applicator Tool HAT

The new Helawrap applicator tool enables the user to bundle cable rapidly and effortlessly. The applicator tool has been optimised to glide smoothly through the cover and allows easy insertion of cable into Helawrap. The unique design also allows individual cables to be removed from the applicator tool and branched off through the cover apertures. A tool is included with every Helawrap package. Additional tools can be purchased separately.



Applicator tools HAT are available for every Helawrap cover size.

Technical Table			
Article-No.	Type	Colour	Pack Cont.
161-60001	HAT8	Blue (BU)	10
161-60002	HAT16	Blue (BU)	10
161-60003	HAT20	Blue (BU)	10
161-60004	HAT25	Blue (BU)	10
161-60005	HAT30	Blue (BU)	10

Subject to technical changes.

Spiral Binding SBPE, SBPEFR, SBPA, SBPAV0 and SBPTFE

Features and Benefits

Spiral Binding is used for organising and protecting cables and hoses. Due to the spiral structure, spiral binding can be applied to cables or hoses in situ. Cables can branch out at any point and in any direction. HellermannTyton spiral binding is available in a wide range of diameters, colours and materials:

- Standard polyethylene SBPE for general applications
- Flame-retardant polyethylene SBPEFR for enhanced flame protection
- Polyamide SBPA for added strength and protection against abrasion
- Flame-retardant polyamide SBPAV0 with UL94 V0 classification for special applications, for instance in the rail and aviation industries
- PTFE (SBPTFE) for superior protection against abrasion, chemicals and extreme temperatures; excellent fire protection

Application

Spiral binding is used to route and bind cables that need high mechanical protection, for instance in the automotive industry as well as in control panels and cabinets. It is also used in electrical installation, where safety is a primary consideration. Spiral binding provides a tidy solution for many applications.



Spiral binding SBPE.

Material Data		
RoHS	Material	Polyethylene (PE)
	Operating Temperature	-60 °C to +90 °C, intermittent +120 °C
	Flammability	UL94 HB



Material Data		
RoHS	Material	Polyethylene (PEFR), Flame retardant
	Operating Temperature	-60 °C to +80 °C, intermittent +120 °C
	Flammability	UL94 V2, FMVSS 302 Type B

Material Data		
RoHS	Material	Polyamide 6 V0 (PA6V0)
	Operating Temperature	-60 °C to +95 °C, intermittent +130 °C
	Flammability	UL94 V0



Material Data		
RoHS	Material	Polyamide 6 (PA6)
	Operating Temperature	-60 °C to +95 °C, intermittent +130 °C
	Flammability	UL94 HB



Material Data		
RoHS	Material	Polytetrafluoroethylene (PTFE)
	Operating Temperature	-60 °C to +260 °C, intermittent +350 °C
	Flammability	UL94 V0

Technical Table

Article-No.	Type	Ø D	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Material	Colour	Pack Cont.
SBPE, 5 m - Lengths									
161-41103	SBPE4D	4.0	1.0	7.8	5.0	20.0	PE	Natural (NA)	5 m
161-41104	SBPE4D	4.0	1.0	7.8	5.0	20.0	PE	Black (BK)	5 m
161-41105	SBPE4D	4.0	1.0	7.8	5.0	20.0	PE	Grey (GY)	5 m
161-41203	SBPE9D	9.0	1.4	12.5	10.0	100.0	PE	Natural (NA)	5 m
161-41204	SBPE9D	9.0	1.4	12.5	10.0	100.0	PE	Black (BK)	5 m
161-41205	SBPE9D	9.0	1.4	12.5	10.0	100.0	PE	Grey (GY)	5 m

All dimensions in mm. Subject to technical changes.

**Spiral Binding SBPE, SBPEFR,
SBPA, SBPAV0 and SBPTFE**

Technical Table

Article-No.	Type	Ø D	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Material	Colour	Pack Cont.
SBPE									
161-41000	SBPE1.5	1.5	0.8	6.0	1.6	8.0	PE	Natural (NA)	30 m
161-41001	SBPE1.5	1.5	0.8	6.0	1.6	8.0	PE	Black (BK)	30 m
161-41002	SBPE1.5	1.5	0.8	6.0	1.6	8.0	PE	Grey (GY)	30 m
161-41100	SBPE4	4.0	1.0	7.8	5.0	20.0	PE	Natural (NA)	30 m
161-41101	SBPE4	4.0	1.0	7.8	5.0	20.0	PE	Black (BK)	30 m
161-41102	SBPE4	4.0	1.0	7.8	5.0	20.0	PE	Grey (GY)	30 m
161-41200	SBPE9	9.0	1.4	12.5	10.0	100.0	PE	Natural (NA)	30 m
161-41201	SBPE9	9.0	1.4	12.5	10.0	100.0	PE	Black (BK)	30 m
161-41202	SBPE9	9.0	1.4	12.5	10.0	100.0	PE	Grey (GY)	30 m
161-41300	SBPE16	16.0	1.6	16.0	20.0	150.0	PE	Natural (NA)	30 m
161-41301	SBPE16	16.0	1.6	16.0	20.0	150.0	PE	Black (BK)	30 m
161-41302	SBPE16	16.0	1.6	16.0	20.0	150.0	PE	Grey (GY)	30 m
SBPEFR									
161-43000	SBPEFR1.5	1.5	0.8	6.0	1.6	8.0	PEFR	White (WH)	30 m
161-43001	SBPEFR1.5	1.5	0.8	6.0	1.6	8.0	PEFR	Black (BK)	30 m
161-43100	SBPEFR4	4.0	1.0	7.8	5.0	20.0	PEFR	White (WH)	30 m
161-43101	SBPEFR4	4.0	1.0	7.8	5.0	20.0	PEFR	Black (BK)	30 m
161-43200	SBPEFR9	9.0	1.4	12.5	10.0	100.0	PEFR	White (WH)	30 m
161-43201	SBPEFR9	9.0	1.4	12.5	10.0	100.0	PEFR	Black (BK)	30 m
161-43300	SBPEFR16	16.0	1.6	16.0	20.0	150.0	PEFR	White (WH)	30 m
161-43301	SBPEFR16	16.0	1.6	16.0	20.0	150.0	PEFR	Black (BK)	30 m
SBPA									
161-42000	SBPA1.5	1.5	0.4	6.0	1.6	8.0	PA6	Natural (NA)	30 m
161-42100	SBPA4	4.0	0.6	7.8	5.0	20.0	PA6	Natural (NA)	30 m
161-42200	SBPA9	9.0	1.0	12.5	10.0	100.0	PA6	Natural (NA)	30 m
161-42300	SBPA16	16.0	1.2	16.0	20.0	150.0	PA6	Natural (NA)	30 m
SBPAV0									
161-44000	SBPAV01.5	1.5	0.4	6.0	1.6	8.0	PA6V0	Black (BK)	30 m
161-44100	SBPAV04	4.0	0.6	7.8	5.0	20.0	PA6V0	Black (BK)	30 m
161-44200	SBPAV09	9.0	1.0	12.5	10.0	100.0	PA6V0	Black (BK)	30 m
161-44300	SBPAV016	16.0	1.2	16.0	20.0	150.0	PA6V0	Black (BK)	30 m
SBPTFE									
161-45000	SBPTFE1.5	1.5	0.5	6.0	1.6	8.0	PTFE	Natural (NA)	5 m
161-45100	SBPTFE4	4.0	0.7	7.8	5.0	20.0	PTFE	Natural (NA)	5 m
161-45200	SBPTFE9	9.0	1.0	12.5	10.0	100.0	PTFE	Natural (NA)	5 m

All dimensions in mm. Subject to technical changes.

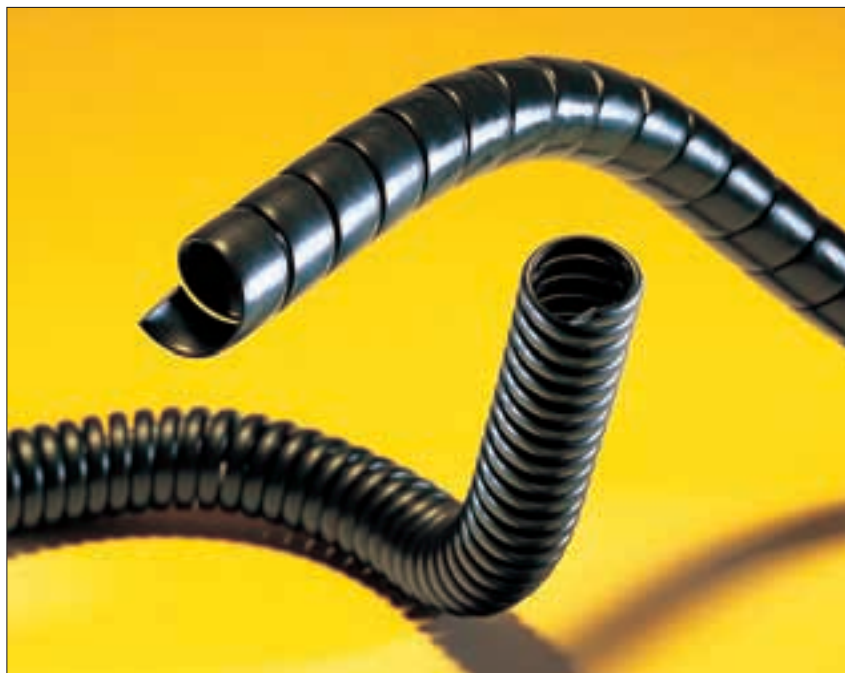
SPS and SPF spiral binding

Features and Benefits

SPS and SPF spiral binding are very robust and offer very good protection from mechanical stress as well as to oils. Both SPS and SPF are available with much larger diameters (up to 50mm) than other spiral bindings and so are ideal for larger cable bundles. SPF has a flat spiral construction which is ideal for inserting cable.

Application

SPS and SPF are used to route and protect cables and wires in the automobile and petrochemical industries as well as in other heavy industries. The polypropylene material is highly resistant to oil.



SPS and SPF Spiral Binding.

Material Data	
Material	Polypropylene (PP)
Colour	Black (BK)
Operating Temperature	-30 °C to +100 °C
Flammability	UL94 HB

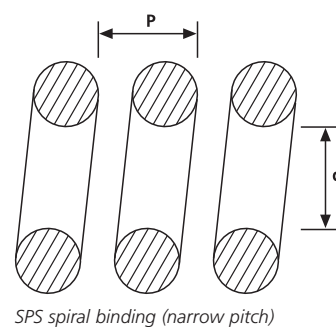


Technical Table

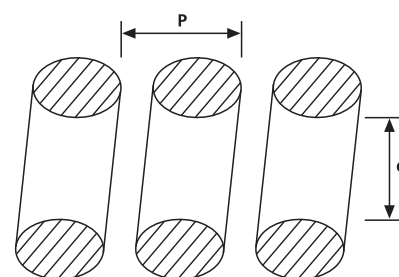
Article-No.	Type	Ø D	Bundle Ø max.	Pitch (P)
SPS				
162-10100	SPS10	10	14	5.0
162-10150	SPS15	15	20	5.0
162-10200	SPS20	20	25	5.5
162-10250	SPS25	25	30	6.0
162-10300	SPS30	30	37	6.5
162-10350	SPS35	35	42	6.5
162-10400	SPS40	40	48	7.0
162-10500	SPS50	50	59	8.0
SPF				
162-20100	SPF10	10	13	10
162-20150	SPF15	15	18	13
162-20200	SPF20	20	23	18
162-20250	SPF25	25	29	19
162-20300	SPF30	30	34	20
162-20350	SPF35	35	39	20
162-20400	SPF40	40	45	20
162-20500	SPF50	50	56	22

All dimensions in mm. Subject to technical changes.

Supplied in 1m lengths.



SPS spiral binding (narrow pitch)



SPF spiral binding (wide pitch)

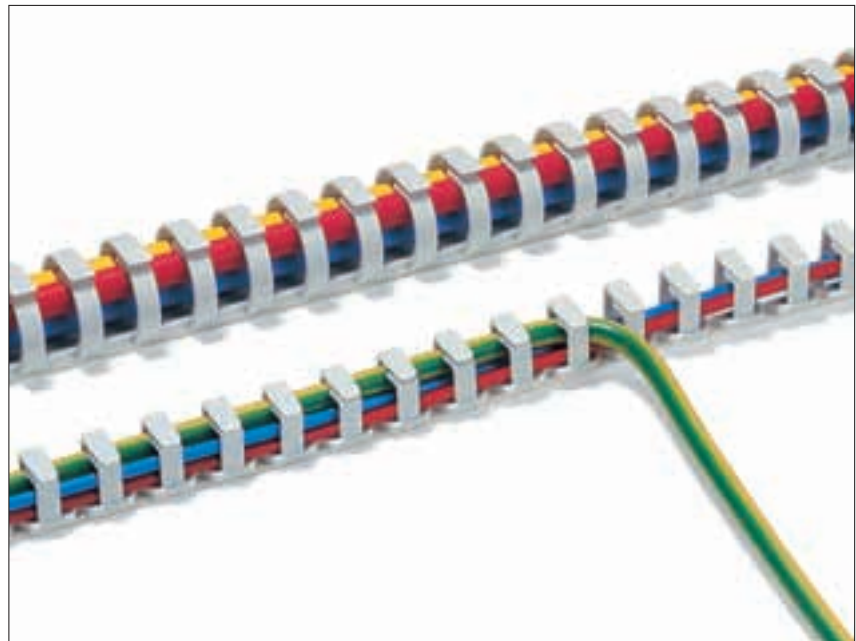
Heladuct HTC Flexible Cable Support

Features and Benefits

The HTC cable supports are a space-saving wiring system which holds the routed cable clearly open to view. Cables can be routed in or out over the whole length of the support. The supports can be rapidly mounted either with screws or an adhesive strip. The high-quality foam bonding layer smooths over irregularities in the underlying surface and works particularly well on powder-coated surfaces. Due to their flexibility, it is possible to install the supports at 90° angles.

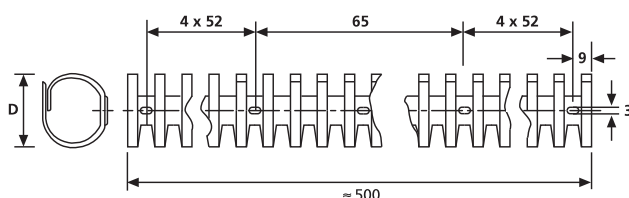
Application

HTC cable supports are commonly used in switching cabinets. They are also used in the furniture industry, where cables need to be routed rapidly and attractively.

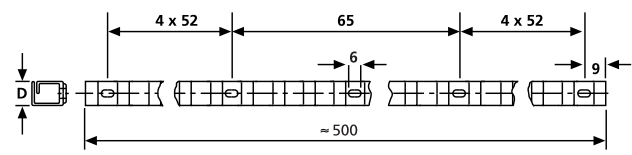


Simple and efficient cable and wire routing with the flexible Heladuct cable support.

Material Data	
Material	Polypropylene (PP)
Colour	White (WH)
Operating Temperature	-20 °C to +70 °C
Adhesive	Synthetic rubber with base of polyethylene foam
Flammability	UL94 V0 (excluding adhesive)



HTC20-HTC40



HTC10SK

Technical Table						
Article-No.	Type	Ø D	No. of Wires			Max. load on a length of 500 mm at 70 °C (g)
			0,75 mm²	1,5mm²	2,5mm²	
Screwable		9 x 11	9	6	4	100
164-10008	HTC10					
164-20008	HTC20					
164-30008	HTC30					
164-40008	HTC40	40	-	81	60	1100
Adhesive		9 x 11	9	6	4	100
164-10108	HTC10SK					
164-20108	HTC20SK					
164-30108	HTC30SK					
164-40108	HTC40SK	40	-	81	60	400

All dimensions in mm. Subject to technical changes.

Supplied in 500mm length. Sk = Adhesive



Please Note for Product Specific Approvals please refer to the Appendix