# Helagaine HEGP and HEGPX Braided Sleeving

#### **Features and Benefits**

Helagaine HEGP and HEGPX braided sleeving offer flexible cable protection, high abrasion resistance and ease of application. Helagaine sleeves are specially woven to expand when compressed and contract when pulled apart.

HEGP provides a high level of surface coverage as well as a high rate of expansion for easy slip-over application. To achieve an optimal fit, HEGP braided sleeving is available in 13 different sizes for application diameters of 1mm to 66 mm.

Where higher expansion or easier application is important and less surface coverage is acceptable, HEGPX offers an expansion ratio of 3:1. Only seven sleeve sizes cover an application range of 2 mm to 70 mm.

#### Application

Helagaine HEGP and HEGPX braided sleeving is used in the automobile sector and in machine construction. It is also used for smaller electrical appliances to avoid pockets of high temperature. HEGP and HEGPX can be supplied in pre-cut lengths on request.

#### **Application Method**

To prevent fraying, the sleeve is cut with a hot-knife, which melts and cleanly fuses the ends of the yarn.

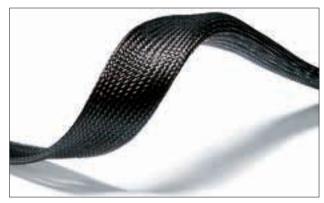
For more information on the HSG0 hot-cutting tool, please turn to page 274.

Material Data
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Material	Polyester (PET)	
Colour	Black (BK)	
Operating Temperature	-50 °C to +150 °C, Intermittent +220 °C	
Melting Point	+250 °C	
Braid Density	ca. 81%	
Flammability	UL94 V2, FMV55 302	LS



Helagaine HEGP braided sleeving.



Helagaine HEGPX braided sleeving.

Technical Table							
Article-No.	Туре	Bundle Ø min.	Bundle Ø max.	Reel Length (m)			
HEGP							
170-10300	HEGP03	1	5	200			
170-10400	HEGP04	2	7	200			
170-10500	HEGP05	3	9	200			
170-10600	HEGP06	4	11	100			
170-10800	HEGP08	5	12	100			
170-11000	HEGP10	7	15	100			
170-11200	HEGP12	8	17	100			
170-11500	HEGP15	10	20	100			
170-12000	HEGP20	14	26	50			
170-12500	HEGP25	18	34	50			
170-13000	HEGP30	20	40	50			
170-14000	HEGP40	30	50	50			
170-15000	HEGP50	40	66	50			
HEGPX							
170-00060	HEGPX06	3	9	100			
170-00090	HEGPX09	5	16	100			
170-00120	HEGPX12	6	19	100			
170-00200	HEGPX20	12	32	100			
170-00300	HEGPX30	19	45	50			
170-00400	HEGPX40	32	70	50			

All dimensions in mm. Subject to technical changes. Colour grey available on request.

# <u>Braide</u>d Sleeving



# Helagaine HEGPV0 and HEGPV0X Braided Sleeving

#### Features and Benefits

Due to its flame-retardant additives, Helagaine HEGPV0 and HEGPV0X braided sleeving is self-extinguishing according to UL94 V0 and should be used wherever fire protection is important. HEGPV0X offers a higher expansion ratio of 3:1.

The special structure of the Polyester braiding keeps out moisture and dirt. HEGPV0 and HEGPV0X are also resistant to acids.

#### Application

Helagaine HEGPV0 and HEGPV0X braided sleeving offers superior cable protection for car and railway vehicle manufacturing as well as machine tools, robotics and automatic equipment.

#### **Application Method**

To prevent fraying, the sleeve is cut with a hot-knife, which melts and cleanly fuses the ends of the yarn.



Helagaine HEGPV0X braided sleeving.

Material Data	r	
Material	Polyester (PBT)	
Colour	Black (BK)	
Operating Temperature	-50 °C to +150 °C, Intermittent +200 °C	
Melting Point	+225 °C	
Flammability	UL94 V0, FMVSS 302	bold

For more information on the HSG0 hot-cutting tool, please turn to page 274.

Technical Tal	ole			
Article-No.	Туре	Bundle Ø min.	Bundle Ø max.	Reel Length (m)
HEGPV0				
170-30400	HEGPV004	3	7	100
170-30600	HEGPV006	5	11	100
170-30800	HEGPV008	7	13	100
170-31200	HEGPV012	11	17	50
170-31500	HEGPV015	13	20	50
170-32000	HEGPV020	18	25	50
170-33000	HEGPV030	27	40	50
170-34000	HEGPV040	35	50	50
HEGPV0X				
170-50030	HEGPV0X03	2	6	200
170-50060	HEGPV0X06	3	9	200
170-50090	HEGPV0X09	5	16	100
170-50120	HEGPV0X12	6	19	100
170-50200	HEGPV0X20	12	32	100
170-50300	HEGPV0X30	19	45	50
170-50400	HEGPV0X40	32	70	50
170-50500	HEGPV0X50	38	76	50

All dimensions in mm. Subject to technical changes.

Colour grey available on request.





# Helagaine HEGPA66 Braided Sleeving

#### **Features and Benefits**

The thread diameter of the Polyamide 6.6 is approximately 10% larger than that of Polyester .This results in tougher sleeving with excellent resistance to abrasion.

Despite its toughness, Helagaine HEGPA66 can be easily applied even over very irregular shapes.

#### Application

Helagaine HEGPA66 is particularly suitable for vehicle manufacturing as well as plant construction.

#### **Application Method**

Fraying of the braided sleeving can be avoided by using a hot-knife to cut the sleeving. Braided sleeving can also be supplied in pre-cut lengths on request.



Various types of Helagaine braided sleeving.

Material Data		
Material	Polyamide 6.6 (PA66)	
Operating Temperature	-60 °C to +150 °C, Intermittent +200 °C	
Melting Point	+255 °C	
Braid Density	ca. 85%	
Flammability	UL94 V2, FMVSS 302	- AFLood
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Technical Tak	ble	1			1
Article-No.	Туре	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length (m)
170-40400	HEGPA6604	3	6	Black (BK)	200
170-40600	HEGPA6606	4	8	Black (BK)	100
170-40800	HEGPA6608	5	10	Black (BK)	100
170-41000	HEGPA6610	7	12	Black (BK)	100
170-41200	HEGPA6612	8	14	Black (BK)	100
170-41600	HEGPA6616	12	18	Black (BK)	50
170-42000	HEGPA6620	15	23	Black (BK)	50
170-42500	HEGPA6625	18	28	Black (BK)	50
170-43000	HEGPA6630	25	32	Black (BK)	50
170-44000	HEGPA6640	30	44	Black (BK)	50
170-45000	HEGPA6650	40	55	Black (BK)	50
170-46000	HEGPA6660	50	65	Black (BK)	50

All dimensions in mm. Subject to technical changes.

Colour grey available on request.

# Helagaine HEGSAS Braided Sleeving

#### **Features and Benefits**

Its special yarn structure gives Helagaine HEGSAS braided polyester sleeving outstanding noise reduction characteristics. Due to its excellent surface coverage and high abrasion resistance, HEGSAS is especially suitable for mechanical protection of cables. HEGSAS can be expanded to 3 times its original diameter and fits easily over irregular shapes.

#### Application

Helagaine HEGSAS is used primarily in the automotive sector and wherever vibration noise must be reduced. Helagaine HEGSAS can be supplied in pre-cut lengths on request.



With its special yarn structure, Helagaine HEGSAS is very effective in reducing vibration noise.

Material Data	]		
М	aterial	Polyester (PET)	
(	Colour	Black (BK)	
Ope Tempe	rating rature	-50 °C to +150 °C, Intermittent +200 °C	
Melting	Point	ca. +260 °C	
Flamm	ability	FMVSS 302	(HE) Golds
			halogenfree

Technical Tak	ble			
Article-No.	Туре	Bundle Ø min.	Bundle Ø max.	Reel Length (m)
170-60401	HEGSAS04	2	6	200
170-60600	HEGSAS06	4	11	200
170-60900	HEGSAS09	6	16	100
170-61200	HEGSAS12	8	20	100
170-61500	HEGSAS15	10	24	50
170-62000	HEGSAS20	13	30	50
170-63000	HEGSAS30	20	40	25
170-64000	HEGSAS40	30	50	25

All dimensions in mm. Subject to technical changes.

Colour grey available on request.

### Helagaine HEGEMIP and HEGEMIPVO Braided Sleeving Features and Benefits

Made of tin-plated copper and polyester threads, Helagaine HEGEMIP and HEGEMIPVO braided sleeves offer electromagnetic protection as well as secure cable bundling. The mix of materials makes the sleeves expandable and easy to apply. In contrast to purely copper braids, the HEGEMIP and HEGEMIPVO sleeves can be bent and twisted and still return to their original form.

As a result, HEGEMIP and HEGEMIPVO are particularly suitable for applications where there is movement.

The supporting inner tube makes insertion of cables easier and protects the sleeves from deformation during transport. Besides their excellent electromagnetic protection ratings, they are very resistant to abrasion. Both sleeves fulfill the requirements of the international EMI norm CISPR25 (10KHz to 1GHz).

#### Application

Helagaine EMI braided sleeving is used for highly sensitive electronics, such as electrical appliances and machines, radio equipment and automobiles.



Helagaine HEGEMIP braided sleeving is made of tin-plated copper and polyester yarn.

Material Data

Material	Polyester (PET), Tin Plated copper	
Colour	Tin coloured and Black	
Operating Temperature	-40 °C to +175 °C, Intermittent +200 °C	
Flammability	UL94 V2, FMVSS 302	
EMI requirements	10 KHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)	
	halogenfree	

Material Data			
Mate	erial	Polyester (PBT), Tin Plated copper	
Cole	our	Tin coloured and Black	
Operat Temperat		-40 °C to +175 °C, Intermittent +200 °C	
Flammabi	ility	UL94 V0, FMVSS 302	
EMI requireme	ents	10 KHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)	6
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### Helagaine HEGEMIP and HEGEMIPV0 Braided Sleeving

Technical Table								
Article-No.	Туре	Material	ØD	Bundle Ø min.	Bundle Ø max.	Weight (g)/m	Reel Length (m)	
173-00400	HEGEMIP04	CU, PET	4	4	6.5	21.5 g/m	100	
173-00600	HEGEMIP06	CU, PET	6	5	10	28.5 g/m	100	
173-00800	HEGEMIP08	CU, PET	8	8	11.5	26.5 g/m	100	
173-01000	HEGEMIP10	CU, PET	10	8	13	43.5 g/m	50	
173-01200	HEGEMIP12	CU, PET	12	10	15	48.0 g/m	50	
173-01400	HEGEMIP14	CU, PET	14	12	18	58.0 g/m	100	
173-01600	HEGEMIP16	CU, PET	16	14	20	72.5 g/m	100	
173-01800	HEGEMIP18	CU, PET	18	16	22	78.6 g/m	50	
173-02000	HEGEMIP20	CU, PET	20	18	25	100.0 g/m	50	

All dimensions in mm. Subject to technical changes.

Cuts in any lengths.

#### Technical Table

				Bundle Ø	Bundle Ø	Weight	Reel Length
Article-No.	Туре	Material	ØD	min.	max.	(g)/m	(m)
173-60400	HEGEMIPV004	CU, PBT	4	4	6.5	21.5 g/m	100
173-60600	HEGEMIPV006	CU, PBT	6	5	10	28.5 g/m	100
173-60800	HEGEMIPV008	CU, PBT	8	8	11.5	26.5 g/m	100
173-61000	HEGEMIPV010	CU, PBT	10	8	13	43.5 g/m	50
173-61200	HEGEMIPV012	CU, PBT	12	10	15	48.0 g/m	50
173-61400	HEGEMIPV014	CU, PBT	14	12	18	58.0 g/m	100
173-61600	HEGEMIPV016	CU, PBT	16	14	20	72.5 g/m	100
173-61800	HEGEMIPV018	CU, PBT	18	16	22	78.6 g/m	50
173-62000	HEGEMIPV020	CU, PBT	20	18	25	100.0 g/m	50

All dimensions in mm. Subject to technical changes.

## Helagaine Braided Sleeving Features and Benefits

Helagaine HLB polyester braided sleeving has an expansion ratio of 3:1. With diameters running from 5 mm to 54 mm, just 3 sizes of the versatile Helagaine HLB covers a very wide range of applications. Large differences in diameter, for instance due to cable jacks and connectors, are easy to handle.

The sleeves are supplied in practical 10m reels in dispenser boxes. The boxes protect the sleeves and can be efficiently stocked. The dispenser opening also guarantees easy extraction of the sleeves.

#### Application

Helagaine HLB is supplied in practical dispenser boxes and covers a wide range of applications with only a few sizes. It is ideal for both the professional and the home user. Helagaine HLB bundles and effectively protects cables and wires, for instance in HiFi systems and in industrial plants. Helagaine HLB also provides good resistance to abrasion.

#### **Application Method**

To prevent fraying, the sleeve is cut with a hot-cutting tool, which melts and cleanly fuses the ends of the yarn



Helagaine HLB: The expansion rate makes it possible. Only three sizes in a handy dispenser box for almost all standard diameters.



Helagaine HLB covers a wide range of applications with only three sizes.

Material Data			
M	aterial	Polyester (PET)	
0	Colour	Black (BK)	
Ope Tempe	rating rature	-50 °C to +150 °C, Intermittent +200 °C	
Melting	Point	+250 °C	
Oxygen	Index	34 % (NF G 07-128)	

Technical Table					
			Bundle Ø	Bundle Ø	Reel Length
Article-No.	Туре	ØD	min.	max.	(m)
170-80150	HLB15	15	5	21	10
170-80250	HLB25	25	10	30	10
170-80350	HLB35	35	18	54	10

All dimensions in mm. Subject to technical changes.



For more information on the HSG0 hot-cutting tool, please turn to page 274.

HellermannTyton

# Cable Protection Systems Braided Sleeving

# HELAHOOK **Re-Sealable Protective Sleeving**

# **Features and Benefits**

HELAHOOK is a lightweight, abrasion resistant and re-sealable protective sleeving. Due to its hook-and-loop sealing system, HELAHOOK can be used to protect cables and hoses that are already fixed. It adapts to very irregular shapes and sizes. It permits quick and easy access to enclosed components and can be used repeatedly. It is therefore a sensible alternative to braided sleeving and corrugated tubing for many common applications.

HELAHOOK has good fire-protection properties. It complies with the standard NF F 16-101, Class F1 for smoke emission and gas toxicity and meets UL94 V2.

#### Application

HELAHOOK is used in industrial machines, electrical appliances, shipbuilding, railway vehicles and in the aerospace industry. HELAHOOK is also employed in automobiles or commercial vehicles. It is the ideal solution for post-termination cable organisation and wherever repeated use is a necessity.



HELAHOOK protective sleeving allows for retrospective fitting and repeated use.



HELAHOOK provides excellent abrasion resistance.

Material Data	
Material	Polyester (PET)
Colour	Black (BK)
Operating Temperature	-50 °C to +150 °C
Flammability	UL94 V2, FMVSS 302
	halogenfree

Technical Table	
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		Bundle Ø	Bundle Ø	Reel Length
Article-No.	Туре	min.	max.	(m)
170-05100	HELAHOOK10	3	15	25
170-05150	HELAHOOK15	10	20	25
170-05200	HELAHOOK20	15	30	25
170-05250	HELAHOOK25	20	40	25
170-05300	HELAHOOK30	25	50	25

All dimensions in mm. Subject to technical changes. Cuts in any lengths are available on request.



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### Braided sleeve hot cutting tool – HSG0

The HSGO hot cutting tool is a light, robust, hand-held device to cut synthetic fabrics such as braided sleeving. It heats up quickly with the press of a button and cuts the sleeving cleanly in a matter of seconds. The individual strands melt and fuse together, preventing the sleeving from fraying.



The HSG0 hot cutting tool prevents the braided sleeving from fraying.

Technical Tab	le	I	
Article-No.	Туре	Weight (Kg)	Colour
170-99001	HSG0	1.15	Blue (BU)
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Subject to technical changes.