# 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 66mm.

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 2mm to 70mm.

#### 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 HSG0 hot-knife please turn to Chapter 6.3.

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Helagaine HEGP braided sleeving.



Helagaine HEGPX braided sleeving.

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Mater	rial Data	
$\sim$	Material	Polyester (PET)
RoHS	Colour	Black (BK)
	 Operating Temperature	-50 °C to +150 °C, Intermittent +220 °C
	Melting Point	+250 °C
	Braid Density	ca. 81%
	Flammability	UL94 V2, FMVSS 302

Technical Tab	le			
Article-No.	Туре	Bundle Ø min.	Bundle Ø max.	Reel Length
HEGP				
170-10300	HEGP03	1	5	200 m
170-10400	HEGP04	2	7	200 m
170-10500	HEGP05	3	9	200 m
170-10600	HEGP06	4	11	100 m
170-10800	HEGP08	5	12	100 m
170-11000	HEGP10	7	15	100 m
170-11200	HEGP12	8	17	100 m
170-11500	HEGP15	10	20	100 m
170-12000	HEGP20	14	26	50 m
170-12500	HEGP25	18	34	50 m
170-13000	HEGP30	20	40	50 m
170-14000	HEGP40	30	50	50 m
170-15000	HEGP50	40	66	50 m
HEGPX				
170-00030	HEGPX03	2	6	200 m
170-00060	HEGPX06	3	9	100 m
170-00090	HEGPX09	5	16	100 m
170-00120	HEGPX12	6	19	50 m
170-00200	HEGPX20	12	32	50 m
170-00300	HEGPX30	19	45	50 m
170-00400	HEGPX40	32	70	50 m

All dimensions in mm. Subject to technical changes.

# 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

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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. For more information on HSG0 hot-knife please turn to Chapter 6.3.



Helagaine HEGPV0X braided sleeving.

	Material Data		
/		laterial	Polyester (PBT)
R	онs	Colour	Black (BK)
		erating erature	-50 °C to +150 °C, Intermittent +200 °C
	Melting	g Point	+225 °C
	Flamm	nability	UL94 V0, FMVSS 302

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



# 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.

Mater	ial Data		
5	Material	Polyamide 6.6 (PA66)	
Rohs	Operating Temperature	-60 °C to +150 °C, Intermittent +200 °C	
	Melting Point	+255 °C	
	Braid Density	ca. 85%	
	Flammability	UL94 V2, FMVSS 302	HC
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Technical Tab	le		1			
Article-No.		Туре	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length
170-40300	HE	GPA6603	2	4	Black (BK)	200 m
170-40400	HE	GPA6604	3	6	Black (BK)	200 m
170-40500	HE	GPA6605	3	7	Black (BK)	200 m
170-40600	HE	GPA6606	4	8	Black (BK)	100 m
170-40800	HE	GPA6608	5	10	Black (BK)	100 m
170-41000	HE	GPA6610	7	12	Black (BK)	100 m
170-41200	HE	GPA6612	8	14	Black (BK)	100 m
170-41600	HE	GPA6616	12	18	Black (BK)	50 m
170-42000	HE	GPA6620	15	23	Black (BK)	50 m
170-42500	HE	GPA6625	18	28	Black (BK)	50 m
170-43000	HE	GPA6630	25	32	Black (BK)	50 m
170-44000	HE	GPA6640	30	44	Black (BK)	50 m
170-45000	HE	GPA6650	40	55	Black (BK)	50 m
170-46000	HE	GPA6660	50	65	Black (BK)	50 m

All dimensions in mm. Subject to technical changes.

# Cable Protection Systems 3.3 Braided Sleeving

# 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.

Mater	ial Data	
5	Material	Polyester (PET)
Rons	Colour	Black (BK)
	Operating Temperature	-50 °C to +150 °C
	Melting Point	ca. +260 °C
	Flammability	FMVSS 302
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Technical Table Bundle Bundle Reel Article-No. Ø min. Ø max. Length Туре 200 m 170-60401 HEGSAS04 2 6 170-60600 **HEGSAS06** 4 11 200 m 170-60900 HEGSAS09 6 16 100 m 170-61200 HEGSAS12 8 20 100 m 170-61500 HEGSAS15 10 24 50 m 170-62000 HEGSAS20 13 30 50 m 170-63000 **HEGSAS30** 20 40 25 m 170-64000 HEGSAS40 30 50 25 m

All dimensions in mm. Subject to technical changes.

## Helagaine HEGEMIP and HEGEMIPVO Braided Sleeving Features and Benefits

Made of tin-plated copper and polyester threads, Helagaine HEGEMIP and HEGEMIPV0 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 HEGEMIPV0 sleeves can be bent and twisted and still return to their original form. As a result, HEGEMIP and HEGEMIPV0 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.

Materi	al Data _		
5	Ma	iterial	Polyester (PET), Tin Plated copper
RoHS	С	olour	Tin coloured and Black
	Oper Temper	ating ature	-40 °C to +175 °C, Intermittent +200 °C
	Flamma	ability	UL94 V2, FMVSS 302
EM	l requiren	nents	10 KHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
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	Material Data	
	Material	Polyester (PBT), Tin Plated copper
R	онs) Colour	Tin coloured and Black
	Operating Temperature	-40 °C to +175 °C, Intermittent +200 °C
	Flammability	UL94 V0, FMVSS 302
	EMI requirements	10 KHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)

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# Helagaine HEGEMIP and HEGEMIPV0 Braided Sleeving



*EMI braided sleeving: reliable protection from electromagnetic radiation.* 

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

All dimensions in mm. Subject to technical changes.

Cuts in any lengths.

Technical Table

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

All dimensions in mm. Subject to technical changes.

### Helagaine HLB

#### **Features and Benefits**

Helagaine HLB polyester braided sleeving has an expansion ratio of 3:1. With diameters running from 5mm to 54mm, 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

Because 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**

The fraying of the sleeving can be prevented with the HSG0 hot cutting tool. You can find more information on the HSG0 hot cutting tool in chapter 6.3



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.

ſ	Mater	ial Data		
		Material	Polyester (PET)	
R	oHs)	Colour	Black (BK)	
		Operating Temperature	-50 °C to +150 °C, Intermittent +200 °C	
		Melting Point	+250 °C	1
		Oxygen Index	34 % (NF G 07-128)	41

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Technical Tab	le		1	1	
Article-No.	Туре	ØD	Bundle Ø min.	Bundle Ø max.	Reel Length (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.

# 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.

Materi	al Data	
	Material	Polyester (PET)
Rons	Colour	Black (BK)
	Operating Temperature	-50 °C to +150 °C
	Flammability	UL94 V2
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Technical Table					
		Bundle	Bundle	Reel	
Article-No.	Туре	Ø min.	Ø max.	Length	
170-05100	HELAHOOK10	3	15	25 m	
170-05150	HELAHOOK15	10	20	25 m	
170-05200	HELAHOOK20	15	30	25 m	
170-05250	HELAHOOK25	20	40	25 m	
170-05300	HELAHOOK30	25	50	25 m	
All dimensions in mm. Subject to technical changes.					

All dimensions in min. Subject to technical chang

Cuts in any lengths are available on request.

## Braided sleeve hot cutting tool -HSG0

The HSG0 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)	
Subject to technical changes				

Subject to technical changes.