





Corrugated Tubing

Isolvin

IWS	232
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Protective Sleeves

Expandable Braided Sleeves

HEGP standard polyester	233
HEGPX high-expansion polyester	234
HEGPV0 polyester, flame-retardant	235
HEGPVOX high-expansion polyester flame-retardant	236
HEGPA66 polyamide 6.6, abrasion-resistant	237
HEGPL polyester, light weight	238
HEGSAS polyester, noise-protection	239

Open Woven Sleeves

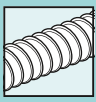
Twist-In self-closing polyester sleeving	240
HELAHOOK re-closable polyester sleeving with hook-and-loop seal	241

Burst Protective Sleeves

HEGWS	242
-------	-----

Electromagnetic Shielding Sleeves

HEGEMIP electromagnetic protection	243
HEGEMIP-HY electromagnetic protection for hybrid automobiles	244
HEGEMIP-VG electromagnetic protection for defence applications	245



Corrugated Conduits

IWS Polyamide 6

IWS corrugated flexible conduits are typically used to route and protect wiring in cars and commercial vehicles, control panels and machines.

Features and benefits

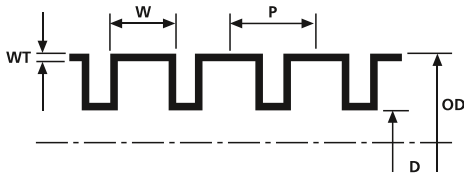
- Good crush and abrasion resistance
- Highly flexible
- Good protection against oils, fuels and solvents
- Self-extinguishing according to UL94 HB and FMVSS 302
- A slit version is available on request



IWS flexible corrugated conduits



Slit version on request.



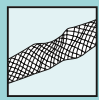
IWS

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-40 °C to +120 °C
Flammability	UL 94 HB, FMVSS 302



PART DESCRIPTION	Nominal Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)
IWS4.5-PA6-BK	4.5	7.3	4.3	8
IWS7.5-PA6-BK	7.5	10.0	6.7	13
IWS8.5-PA6-BK	8.5	11.7	8.4	15
IWS10-PA6-BK	10	13.0	9.9	20
IWS12-PA6-BK	12	15.7	12.2	30
IWS13-PA6-BK	13	15.8	12.7	35
IWS14-PA6-BK	14	18.5	14.2	40
IWS17-PA6-BK	17	21.2	16.6	45
IWS19-PA6-BK	19	24.3	19.3	50
IWS22-PA6-BK	22	25.4	21.3	50
IWS23-PA6-BK	23	28.3	23.2	55
IWS26-PA6-BK	26	31.2	25.8	60
IWS29-PA6-BK	29	34.5	29.0	65

All dimensions in mm. Subject to technical changes.



Standard polyester braided sleeving

Helagain HEGP

Helagain HEGP braided sleeving provides abrasion protection in the automotive industry, in machine building, in panel building and in electrical appliances.

Features and benefits

- Made of sturdy polyester
- Highly flexible
- High abrasion resistance
- Very high surface coverage



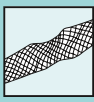
Helagain HEGP braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302
EN 45545-2 Classification	R22 HL3, R23 HL3



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGP03-PET-BK	1.0	5.0
HEGP04-PET-BK	2.0	7.0
HEGP05-PET-BK	3.0	9.0
HEGP06-PET-BK	4.0	11.0
HEGP08-PET-BK	5.0	12.0
HEGP10-PET-BK	7.0	15.0
HEGP12-PET-BK	8.0	17.0
HEGP15-PET-BK	10.0	20.0
HEGP20-PET-BK	14.0	26.0
HEGP25-PET-BK	18.0	34.0
HEGP30-PET-BK	20.0	40.0
HEGP40-PET-BK	30.0	50.0
HEGP50-PET-BK	40.0	66.0

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



High-expansion polyester braided sleeving

Helagain HEGPX

Helagain HEGPX is used whenever a higher expansion rate is required. HEGPX is particularly suitable for use in the automotive industry and in electrical appliances.

Features and benefits

- Made of sturdy polyester
- Highly flexible
- Expands to 3x nominal diameter
- Easy to apply over irregular shapes
- Good abrasion resistance



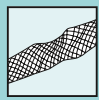
Helagain HEGPX braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302
EN 45545-2 Classification	R22 HL2, R23 HL2



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGPX06-PET-BK	3.0	10.0
HEGPX09-PET-BK	5.0	16.0
HEGPX12-PET-BK	6.0	19.0
HEGPX20-PET-BK	13.0	32.0
HEGPX30-PET-BK	19.0	45.0
HEGPX40-PET-BK	32.0	70.0

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



Flame-retardant polyester braided sleeving

Helagaine HEGPV0

HEGPV0 braided sleeving is used wherever fire protection is important such as in railway vehicles, machine tools, robotics and automatic equipment.

Features and benefits

- Made of sturdy polyester
- Self-extinguishing according to UL94 V0 for enhanced fire protection
- Highly flexible
- High abrasion resistance
- High surface coverage



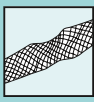
Helagaine HEGPV0 braided sleeving.

MATERIAL	Polyester (PBT)
Operating Temperature	-50 °C to +150 °C
Melting Point	+225 °C
Flammability	UL 94 V0, FMVSS 302



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGPV004-PBT-BK	3.0	7.0
HEGPV006-PBT-BK	5.0	11.0
HEGPV008-PBT-BK	7.0	13.0
HEGPV012-PBT-BK	11.0	17.0
HEGPV015-PBT-BK	13.0	20.0
HEGPV020-PBT-BK	18.0	25.0
HEGPV030-PBT-BK	27.0	40.0
HEGPV040-PBT-BK	35.0	50.0
HEGPV050-PBT-BK	40.0	60.0

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



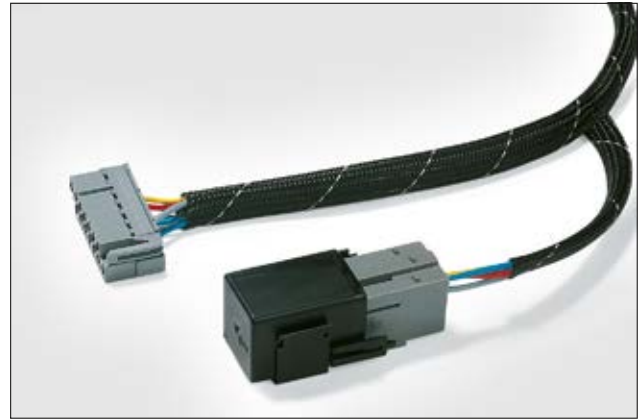
Flame-retardant, high-expansion polyester braided sleeving

Helagain HEGPV0X

Helagain HEGPV0X braided sleeving is especially suitable wherever fire protection is important, such as in railway vehicles.

Features and benefits

- Made of sturdy polyester
- Self-extinguishing according to UL94 V0 for enhanced fire protection
- Highly flexible
- Expands to 3x nominal diameter
- Easy to apply over irregular shapes
- Good abrasion resistance



Helagain HEGPV0X flame-retardant braided sleeving.

MATERIAL	Polyester (PBT)
Operating Temperature	-50 °C to +150 °C
Melting Point	+225 °C
Flammability	UL 94 V0, FMVSS 302



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGPV0X03-PBT-BK	2.0	6.0
HEGPV0X06-PBT-BK	3.0	10.0
HEGPV0X09-PBT-BK	5.0	16.0
HEGPV0X12-PBT-BK	6.0	19.0
HEGPV0X20-PBT-BK	12.0	32.0
HEGPV0X30-PBT-BK	19.0	45.0
HEGPV0X40-PBT-BK	32.0	70.0
HEGPV0X50-PBT-BK	38.0	76.0

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



Abrasion-resistant polyamide braided sleeving

Helagain HEGPA66

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

Features and benefits

- Made from heavy-duty polyamide yarn
- Excellent abrasion resistance
- Highly flexible
- Easy to apply over irregular shapes
- Eases application by expanding when compressed
- Very high surface covering



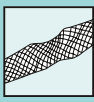
Helagain HEGPA66 braided sleeving.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-60 °C to +150 °C
Melting Point	+255 °C
Flammability	UL 94 V2, FMVSS 302
EN 45545-2 Classification	R22 HL3, R23 HL3



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGPA6604-PA66-BK	3.0	6.0
HEGPA6606-PA66-BK	4.0	8.0
HEGPA6608-PA66-BK	5.0	10.0
HEGPA6610-PA66-BK	7.0	12.0
HEGPA6612-PA66-BK	8.0	14.0
HEGPA6616-PA66-BK	12.0	18.0
HEGPA6620-PA66-BK	15.0	23.0
HEGPA6625-PA66-BK	18.0	28.0
HEGPA6630-PA66-BK	25.0	32.0
HEGPA6640-PA66-BK	30.0	44.0
HEGPA6650-PA66-BK	40.0	55.0
HEGPA6660-PA66-BK	50.0	65.0

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



Light-weight polyester braided sleeving

Helagain HEGPL

Helagain HEGPL is used primarily in the automobile interior, motor compartment, car body and chassis.

Features and benefits

- Made of sturdy polyester
- Expands to 3x nominal diameter
- Easier application over irregular shapes
- Highly flexible
- Good abrasion resistance



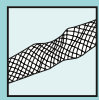
Helagain HEGPL braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302, Type B



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGPL03-PET-BK	3.0	8.0
HEGPL06-PET-BK	5.0	12.0
HEGPL12-PET-BK	8.0	21.0
HEGPL20-PET-BK	12.0	30.0
HEGPL30-PET-BK	18.0	55.0
HEGPL40-PET-BK	24.0	66.0
HEGPL50-PET-BK	30.0	82.0

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



Noise-protection polyester braided sleeving

Helagain HEGSAS

Helagain HEGSAS braided sleeving is used primarily in the automotive sector, where vibration noise must be reduced.

Features and benefits

- Superior noise reduction
- Made of sturdy polyester
- Highly flexible
- Easy to apply over irregular shapes due
- High surface coverage
- Excellent abrasion resistance



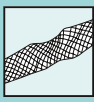
Helagain HEGSAS braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	FMVSS 302



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HEGSAS04-PET-BK	2.0	8.0
HEGSAS06-PET-BK	4.0	11.0
HEGSAS09-PET-BK	6.0	16.0
HEGSAS12-PET-BK	8.0	20.0
HEGSAS15-PET-BK	10.0	24.0
HEGSAS20-PET-BK	13.0	30.0
HEGSAS30-PET-BK	20.0	40.0
HEGSAS40-PET-BK	30.0	50.0

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



Self-closing polyester sleeving

Helagaine Twist-In

Helagaine Twist-In is used to bundle and protect pre-terminated cables in machine-building and automation, electrical installations and automobile and truck manufacturing.

Helagaine Twist-In is also available in practical 2 m and 5 m lengths for use in the home or office.

Features and benefits

- Self-closing sleeve made of sturdy polyester
- Provides very good protection against abrasion
- Ideal for retro-fitting
- Quick and easy installation and removal
- Allows for inspection and maintenance



Helagaine Twist-In enables easy access to cables and wires for assembly, inspection and maintenance.



Colour orange available on request.



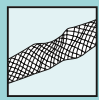
Cut lengths available on request. Please contact us!

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +125 °C
Melting Point	+255 °C
Flammability	self-extinguishing, FMVSS 302



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
Twist-In 05-PET-BK	4.0	5.0
Twist-In 08-PET-BK	5.0	8.0
Twist-In 13-PET-BK	10.0	13.0
Twist-In 19-PET-BK	16.0	19.0
Twist-In 25-PET-BK	19.0	25.0
Twist-In 29-PET-BK	25.0	29.0
Twist-In 32-PET-BK	29.0	32.0
Twist-In 38-PET-BK	32.0	38.0
Twist-In 50-PET-BK	38.0	50.0

All dimensions in mm. Subject to technical changes.



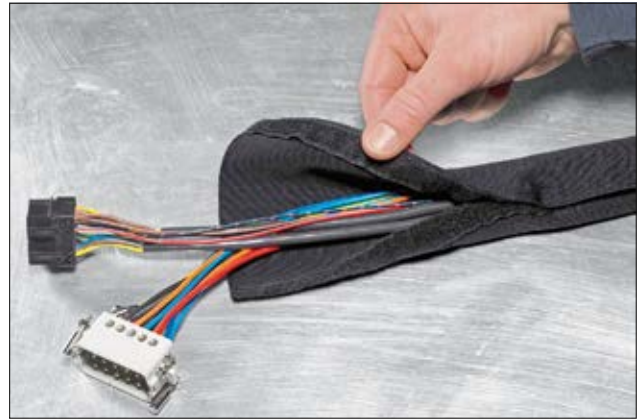
Re-closeable protective sleeving with hook-and-loop seal

HELAHOOK

HELAHOOK is used in automobiles and commercial vehicles as well as industrial machines and railway vehicles. HELAHOOK is especially practical where repeated use is required, for instance in event management.

Features and benefits

- Re-sealable cable protection made of polyester
- Very elastic, fits snugly around the cables
- Hook and loop sealing system can be used for retro-fitting
- High abrasion-resistance



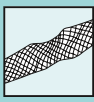
HELAHOOK protective sleeving allows for retro-fitting and repeated use.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Flammability	UL 94 V2, FMVSS 302



PART DESCRIPTION	Bundle Ø min.	Bundle Ø max.
HELAHOOK10-PET-BK	3.0	15.0
HELAHOOK15-PET-BK	10.0	20.0
HELAHOOK20-PET-BK	15.0	30.0
HELAHOOK25-PET-BK	20.0	40.0
HELAHOOK30-PET-BK	25.0	50.0

All dimensions in mm. Subject to technical changes.
Cuts in any lengths.



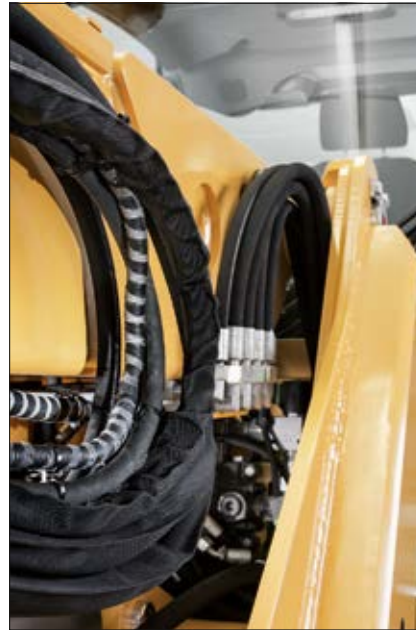
Burst Protection Sleeving for Hydraulic Hoses

Helagain HEGWS

Helagain HEGWS is burst protection sleeve highly resistant to abrasion and tears. HEGWS is used to protect hydraulic hoses and prevent injuries due to leaks emitting high-pressure liquid jets. HEGWS is typically used with earth moving machinery and where there is high mechanical vibration.

Features and benefits

- Exceptional tear-resistance
- Very good protection against abrasion
- Optimal protection of hydraulic hoses
- Reduces risk of liquid-jet injuries
- Fulfills the standards of Earth Moving Machinery EN ISO 3457 and Mechanical Vibration and Shock EN 1299



Helagain HEGWS: The ideal protective sleeve for hydraulic hoses.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +125 °C
Melting Point	+220 +/- 10 °C
Flammability	UL 94 V2, FMVSS 302, Type B



PART DESCRIPTION	Inside Ø (ID)	Wall (WT)
HEGWS20-PA6-BK	12	1.10
HEGWS25-PA6-BK	15	1.10
HEGWS30-PA6-BK	19	1.10
HEGWS35-PA6-BK	22	1.10
HEGWS40-PA6-BK	25	1.10
HEGWS45-PA6-BK	28	1.10
HEGWS50-PA6-BK	31	1.10
HEGWS60-PA6-BK	38	1.10
HEGWS70-PA6-BK	44	1.10
HEGWS80-PA6-BK	50	1.10
HEGWS90-PA6-BK	57	1.10
HEGWS100-PA6-BK	60	1.10
HEGWS115-PA6-BK	70	1.10
HEGWS145-PA6-BK	90	1.10
HEGWS176-PA6-BK	110	1.10
HEGWS200-PA6-BK	125	1.10

All dimensions in mm. Subject to technical changes.



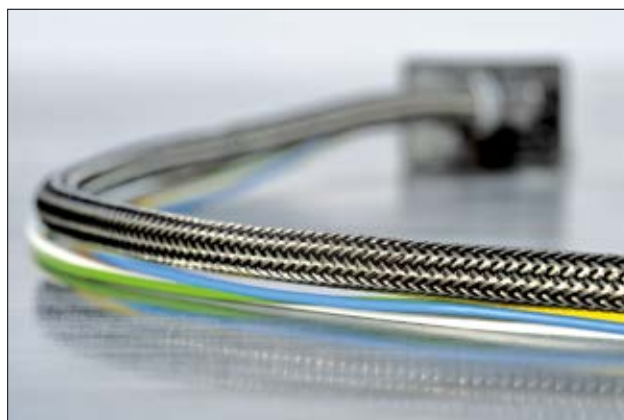
Electromagnetic protection braided sleeving

Helagain HEGEMIP

Helagain HEGEMIP braided sleeving is used for highly sensitive electronics, such as in machines, military equipment and automobiles.

Features and benefits

- Excellent electromagnetic protection
- Extremely flexible, expandable and easy to apply
- No kinks or ruptures even when bent at sharp angles
- Superior abrasion protection
- Particularly suitable for applications with restricted space or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Fulfils the requirements of IEC CISPR25 for radio disturbances in vehicles, boats and engines



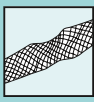
HEGEMIP braided sleeving: reliable protection from electromagnetic radiation.

MATERIAL	Polyester, halogen free (PET), Tin-plated copper (SNCU)
Operating Temperature	-40 °C to +150 °C
EMI requirements	10 kHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
Flammability	UL 94 V2, FMVSS 302



PART DESCRIPTION	Ø (D)	Bundle Ø min.	Bundle Ø max.	Weight
HEGEMIP04-PET/TNCU-ML	4.0	4.0	6.0	22 g/m
HEGEMIP06-PET/TNCU-ML	6.0	5.0	10.0	29 g/m
HEGEMIP08-PET/TNCU-ML	8.0	8.0	11.0	27 g/m
HEGEMIP10-PET/TNCU-ML	10.0	8.0	13.0	44 g/m
HEGEMIP12-PET/TNCU-ML	12.0	10.0	15.0	48 g/m
HEGEMIP14-PET/TNCU-ML	14.0	12.0	18.0	58 g/m
HEGEMIP16-PET/TNCU-ML	16.0	14.0	20.0	73 g/m
HEGEMIP18-PET/TNCU-ML	18.0	16.0	22.0	79 g/m
HEGEMIP20-PET/TNCU-ML	20.0	18.0	25.0	100 g/m

All dimensions in mm. Subject to technical changes.
Cuts in any lengths.



Electromagnetic protection braided sleeving for hybrid automobiles

Helagain HEGEMIP-HY

Helagain HEGEMIP-HY provides electromagnetic protection in hybrid automobiles.

Features and benefits

- Excellent electromagnetic protection
- Extremely flexible, expandable and easy to apply
- No kinks or ruptures even when bent at sharp angles
- Superior abrasion protection
- Special copper alloy for enhanced protection against salt spray
- Particularly suitable for applications with restricted space or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Fulfils the requirements of IEC CISPR25 for radio disturbances in vehicles, boats and engines



HEGEMIP-HY braided sleeving: EMI protection for hybrid automobiles.

MATERIAL	Polyester (PET), Tin-plated copper (SNCU)
Operating Temperature	-40 °C to +150 °C
EMI requirements	10 kHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
Flammability	UL 94 V2, FMVSS 302



PART DESCRIPTION	Ø (D)	Bundle Ø min.	Bundle Ø max.	Weight
HEGEMIP-HY20-PET/TNCU-ML/OG	20.0	19.0	27.0	72 g/m
HEGEMIP-HY30-PET/TNCU-ML/OG	30.0	25.0	35.0	101 g/m
HEGEMIP-HY35-PET/TNCU-ML/OG	35.0	30.0	40.0	120 g/m
HEGEMIP-HY40-PET/TNCU-ML/OG	40.0	30.0	50.0	180 g/m
HEGEMIP-HY50-PET/TNCU-ML/OG	50.0	40.0	60.0	193 g/m

All dimensions in mm. Subject to technical changes.
Cuts in any lengths.



Electromagnetic protection braided sleeving for defence applications

Helagaine HEGEMIP-VG

Helagaine HEGEMIP-VG provides electromagnetic protection for the defence industry.

Features and benefits

- Excellent electromagnetic protection
- Very flexible, expandable and easy to apply
- Especially suitable for applications in tight areas or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Very good abrasion resistance
- Approved to military norm VG 96936-10 / Type A



HEGEMIP-VG braided sleeving with VG approval for defence applications.

MATERIAL	Tin-plated copper (SNCU)
Operating Temperature	-65 °C to +150 °C
Flammability	UL 94 V2, FMVSS 302



PART DESCRIPTION	Ø (D)	Bundle Ø min.	Bundle Ø max.	Weight
HEGEMIP-VG03-TNCU-ML	3.0	3.5	5.0	19 g/m
HEGEMIP-VG04-TNCU-ML	4.0	4.5	7.0	30 g/m
HEGEMIP-VG06-TNCU-ML	6.0	5.5	8.5	37 g/m
HEGEMIP-VG07.5-TNCU-ML	7.5	7.5	13.5	71 g/m
HEGEMIP-VG10-TNCU-ML	10.0	13.0	17.5	96 g/m
HEGEMIP-VG12.5-TNCU-ML	12.5	15.0	19.5	100 g/m
HEGEMIP-VG20-TNCU-ML	20.0	19.0	30.0	265 g/m

All dimensions in mm. Subject to technical changes.