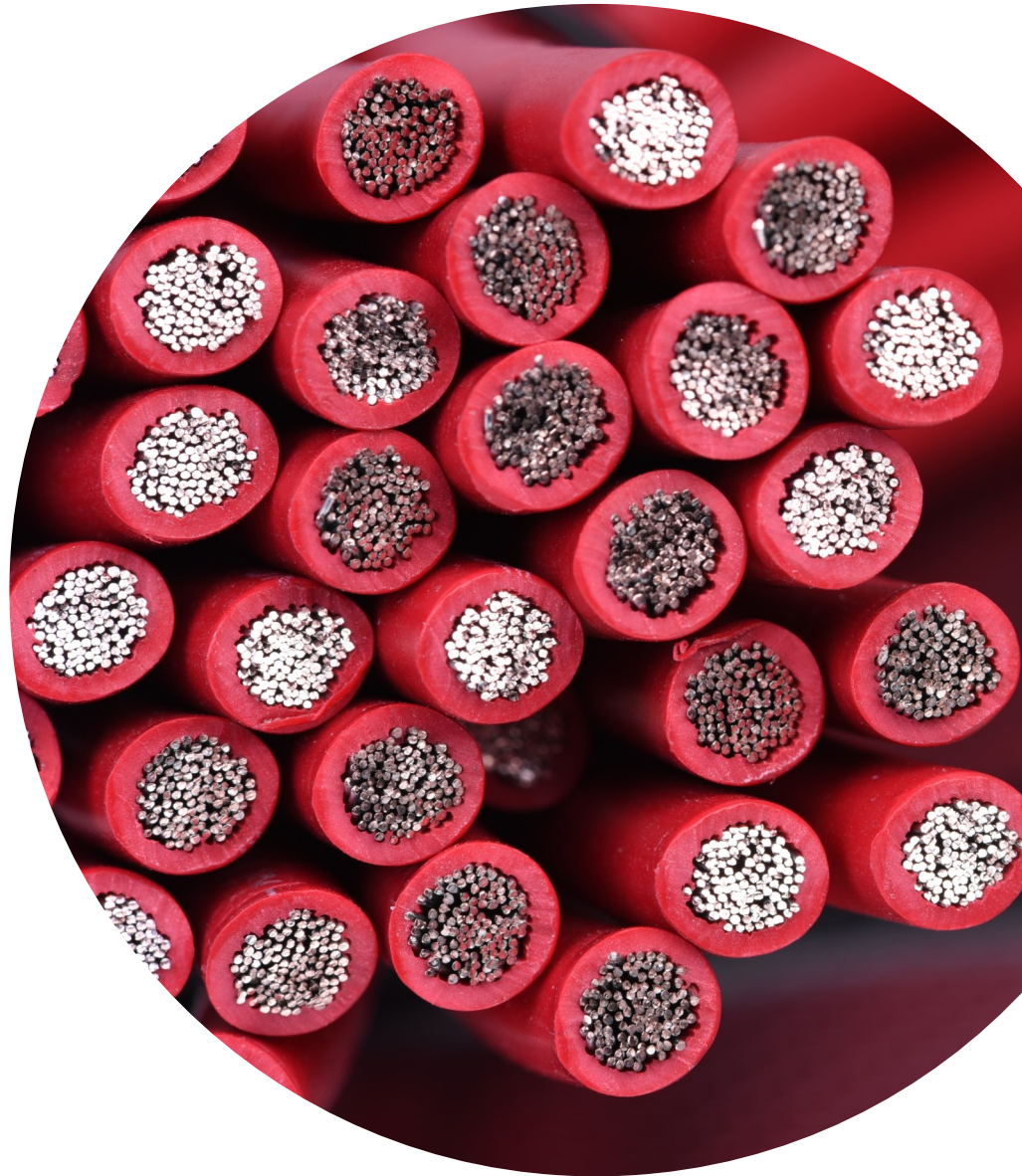




by BENVIC
Linkflex



Linkflex HF series

Halogen Free Flame Retardant compounds



More solutions for cable compounds

Benvic is pleased to introduce the Linkflex HF series - offering products and cables that contain leading-edge halogen free and flame retarded (HFFR) and low smoke zero halogen (LSZH) properties.

Based on a polyolefin matrix, the Linkflex HF series complies with IEC60754-2 standard for low acidity emissions. Behaviour during fire exposure has been optimized to allow cables to meet EN 50575 standard classes from Eca up to B2ca with associated features such as low droplet generation.

Mechanical, chemical resistance and climatic characteristics have also been optimized to allow a high level of flexibility and ease-of-use for final customers.

Particular care has been taken to optimize the key characteristics for cable processing, to make sure that the total cost for cable manufacturers remains efficient and under control.

The latest compounding processing techniques have also been chosen to make sure that product stability and quality are at optimum levels.

In addition, Benvic's engineering team provides technical support that can extend and adapt the properties of the Linkflex HF range for specific customer needs.

The Linkflex HF series complements Benvic's expertise in PVC compounds and reaffirms the company's expertise in productions for the building, construction, electrical and cable industries.



insulation



Applications



Building Benvic's Linkflex HF range is focused on building applications for low voltage applications. Different grades of Linkflex HF are able to cover standard 300/500V basic levels right up to the highest Construction Product Regulation (CPR) classifications.



DataCom Deployment of high speed internet and 5G wireless technology call for a range of cabling that is able to meet this application's specific needs. Linkflex HF grades are designed and made exactly for this marketplace.



Energy Linkflex HF is particularly adapted for sheathing the entire range of voltage needs for energy cables, from low to extra-high voltage.



Utilities and industrial Benvic compounding know-how is a great advantage when it comes to the formulation of cable with features that are mission-critical and need to be supplied without compromise. Our dedicated engineering teams for cable compounds can support and assist customers in many of these sectors - including marine, industrial, automotive and transportation .

Features

Benvic's dedicated Linkflex materials match all possible requirements in all possible applications:



Zero halogen content



Oil resistance



Compatibility to CPR euroclass⁽¹⁾



Resistance against solvents



Flame retarded



High mechanical flexibility



Low smoke emission



Resistant against abrasion



Extreme servicing temperature



Cross-linked



Hydrocarbon resistance

(1) Final CPR Euroclass for cable is met, depending on design considerations. The class indication is indicated as reference and a proof of performance. Please contact us for more details.

Value for customer



Product / Process optimisation Linkflex HF does not simply offer compliance with market regulations. Successful cable manufacturers must also demonstrate value-for-money products. This can only happen by focusing on an optimum performance in plastics processing and by minimizing and removing non quality and inefficient costs. Benvic has taken particular care to produce the new Linkflex range at optimum cost.



LINKFLEX HF S series - Sheathing for Bulding & Energy

	Tensile Strength [Mpa]	Elongation [%]	LOI [%]	Hardness [shore D]	Temperature range [°C]	Color	Specific features
HFS002	>10	>150	38	49	-40/90*	Natural	IEC Sheathing 1kV Cable
HFS002-G	>10	>125	38	42	-40/90*	Natural	BS Sheathing 1 kV cables
HFS003	>10	>150	39	48	-40/90*	Natural	CPR Sheathing 1kV Cable
HFS009	>12.5	>300	-	-	-40/90*	Natural	Cables for energy distribution (LV UTILITIES)
HFM001	>10	>150	38	49	-40/90*	Natural	Insulation / IEC sheathing 1 kV cable

Product packaged in big bags of 500kg, 1000kg or 1200kg
 (*) valid for XLPE insulation cable



LINKFLEX HF S series - Datacom & Fiber Optic

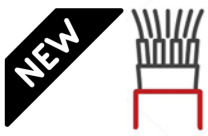
	Density [g/cm ³]	Tensile Strength [Mpa]	Elongation [%]	LOI [%]	Hardness [shore D]	Temperature range [°C]	Color	Specific features
HFS606	1.54	>10	>150	27	46	-25/90	Natural	DataCom, FO sheathing (Eca)
HFS607	1.51	>10	>125	34	43	-25/90	Natural	DataCom, FO sheathing. Enhanced Fire Performance
HFS611	1.52	>10	>150	34	52	-40/90*	Natural	FTTH ESCR
HFS613	1.58	>10	>125	38	44	-40/90*	Natural	FTTH ESCR enhanced fire

Product packaged in big bags of 500kg, 1000kg or 1200kg
 (*) valid for XLPE insulation cable



LINKFLEX HF X series - Cross Linked

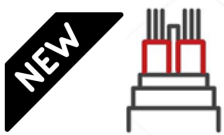
	Density [g/cm ³]	Tensile Strength [Mpa]	Elongation [%]	LOI [%]	Hardness [shore D]	Temperature range [°C]	Color	Specific features
HFX003	1.49	>10	>150	-	40	-25/90	Natural	Sheathing moisture crosslinkable compound for photovoltaic cables



LINKFLEX HF S series - Specialties & Transportation

	Density [g/cm ³]	Tensile Strength [Mpa]	Elongation [%]	LOI [%]	Hardness [shore D]	Temperature range [°C]	Color	Specific features
HFS512	1.58	>10	>150	38	48	-40/90*	Natural	Sheathing compound for armored Railway Network
HFS511	1.52	>10	>150	34	52	-40/90*	Natural	Desert Grade LSOH armored cables
HFS513	1.58	>10	>150	37	52	-40/90*	Natural	CPR Desert Grade LSOH armored cables

Product packaged in big bags of 500kg, 1000kg or 1200kg
 (*) valid for XLPE insulation cable



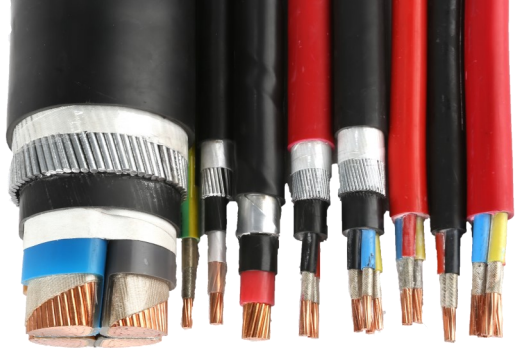
LINKFLEX HF I series - Insulation

	Density [g/cm ³]	Tensile Strength [Mpa]	Elongation [%]	LOI [%]	Hardness [shore D]	Temperature range [°C]	Color	Specific features	Applicable standard
HF1009	1.57	>10	>150	40	45	-25/70	Natural	LV Insulation H05Z1 & H07Z1 cables. Mass insulation (CPR)	EN5363-7 T16 EN5363-7 T17
HF1011	1.54	>10	>150	35	48	-25/70	Natural	Insulation H05Z1 & H07Z1 cables. Skin layer (CPR)	EN5363-7 T16 EN5363-7 T17
HF1012	1.49	>10	>150	34	52	-25/70	Natural	Thermoplastic Insulation for Z1Z1, Z1C4Z1 cables (CPR)	EN5363-7 T16 EN5363-7 T17
HF1014	1.57	>10	>125	37	51	-25/70	Natural	CPR Insulation H05Z1 & H07Z1 cables. Mass insulation	EN5363-7 T17
HF1018	1.59	>10	>125	41	51	-25/70	Natural	Insulation for 500V & 750V cables. CPR (B2ca)	EN5363-7 T17
HFM001	1.61	>10	>150	38	49	-40/90*	Natural	Insulation / IEC sheathing 1 kV cable	EN5363-7 T16 EN5363-7 T17

Product packaged in big bags of 500kg, 1000kg or 1200kg

Technical data sheets, processing recommendations and other supporting data are available upon demand. The information given here above is general commercial information, cannot be considered as a specification can change without prior notice. Benvic also supports customers through continuous adaptation of its products: please contact your nearest sales representative for technical support.

Application chart



Part number	 Building residential	 Public building	 Datacom	 Fiber optic	 Energy	 Photovoltaic	 Utilities Industrial
HFS002	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>
HFS002-G	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>
HFS003	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
HFS009					<input type="radio"/>		
HFS512	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
HFS511							<input type="radio"/>
HFS513							<input type="radio"/>
HFS606			<input type="radio"/>	<input type="radio"/>			
HFS607			<input type="radio"/>	<input type="radio"/>			
HFS611				<input type="radio"/>			
HFS613			<input type="radio"/>	<input type="radio"/>			
HFM001	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HFX003						<input type="radio"/>	
HFI009	<input type="radio"/>	<input type="radio"/>					
HFI011	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
HFI012	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>		
HFI014	<input type="radio"/>	<input type="radio"/>					
HFI018	<input type="radio"/>	<input type="radio"/>					
HFM001	<input type="radio"/>				<input type="radio"/>		<input type="radio"/>

Product compatible with the application
 Product recommended for application

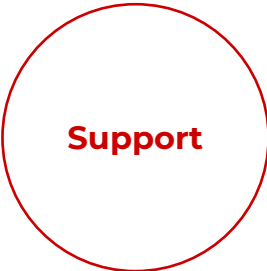




Part number	HD603-A3 DMO1	HD603-S2 DMZ2	EN50363-8 TM7	EN50290 (70°)	EN 50290 (90°)	UNE 21123-4 DMZ-E	EN 50363-0 M1	VDE 0207 HM2	VDE 0207 HM4	IEC 60502-1 ST8	IEC60092-360 SHF1	BS7655 LTS1	BS7655 LTS2	BS7655 LTS3	BS7655 LTS4	EN 50618:2015 photovoltaic cables	ADIF ET 03.354.019.6
HFS002						○	○	○	○	○	○		○				
HFS002-G			○			○	○	○	○	○	○	○	○	○	○	○	
HFS003						○	○	○	○	○	○		○				
HFS009	○	○															
HFS512										○							○
HFS511			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
HFS513			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
HFS606				○				○		○							
HFS607				○				○		○							
HFS611					○	○		○		○		○	○				
HFS613					○	○		○		○		○	○				
HFM001						○	○	○	○	○	○		○				
HFX003																	○

S series

The applicable standards for the insulation series are reported on page 5.



Benvic's cable polymer compounding team supports new cable design and also creates new and bespoke versions of Linkflex on demand. For further questions or specific needs, please contact your Benvic sales representative – or consult the Linkflex website at www.benvicforcables.com





www.benvic.com