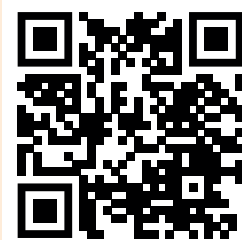




Manufactured by:
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www.lotuswires.com



WIRED UP FOR **SAFETY**





ABOUT US

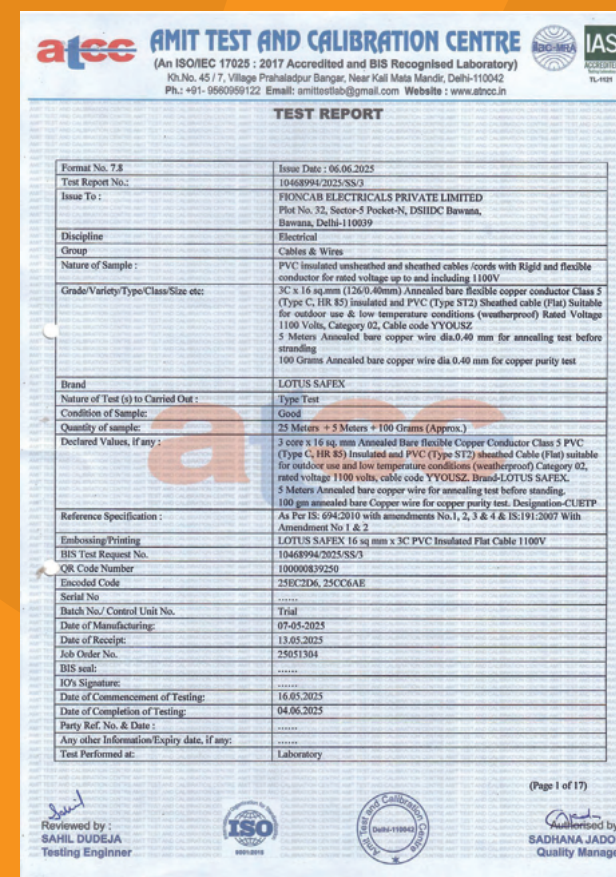
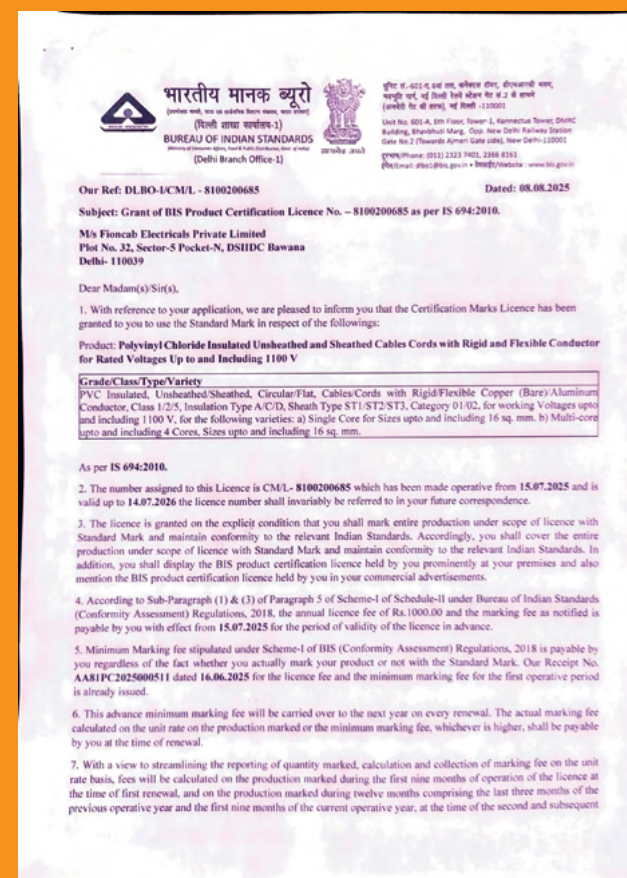
Lotus Wires & Cables is one of India's leading wire and cable manufacturing companies in the electrical sector. With over three decades of industry experience, we work diligently to produce products utilising the latest technologies. We have consistently embraced the latest advancements in wire design and engineering to meet the evolving needs of our customers.

We aim to deliver top-quality products to a diverse clientele, residential, commercial, and industrial, across the globe. With a wide range of wires and cables, we have earned a reputation as an innovative leader and a trusted manufacturer by continuously upgrading technology, modernizing manufacturing facilities, and maintaining the highest industry standards of quality and service.

Driven by new marketing and technical perspectives, Lotus Wires & Cables is steadily emerging as a leader among its competitors. We strive to bring better products to market on time, leaving no stone unturned in ensuring timely delivery and uncompromising quality.



CERTIFICATIONS

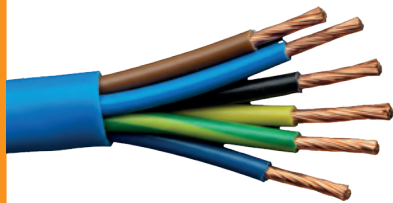


OUR PRODUCT RANGE

Multi-Strand Wire



Multicore Flexible Cables



2 Core Flat Cables



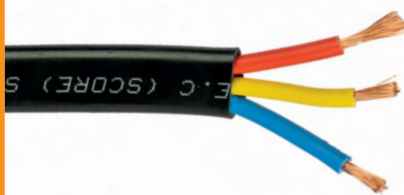
Aluminium Cables



Aluminium Multicore Cables



Submersible Wire



Speaker Wire



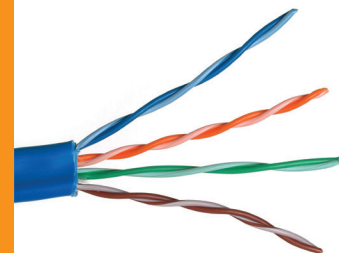
Coaxial Cables



CCTV Cables



Network Cables CAT6



42% OF TOTAL FIRES OCCUR DUE TO POOR ELECTRICAL INSTALLATIONS.

To ensure safety of your premises, make sure that the right MCB/ELCB are installed with GOOD QUALITY WIRES

WHAT TO LOOK FOR IN YOUR BUILDING WIRES

QUALITY OF CONDUCTOR

The wires should be made of electrolytic i.e. pure copper. This ensures that the current-carrying capacity of the wire is optimum. Look for a wire that has the copper Purity hologram on the pack.

QUALITY OF INSULATION

Copper heats up when electricity passes through it. This can cause melting and fusing of the insulation. In case of a short circuit or fire, good insulation makes all the difference. It fights the spread of fire and toxic smoke. **Good quality insulation protects wires, protects your home.**

CHECK IF THE WIRE IS

- ISI Marked
- CE Marked
- REACH & RoHS compliant (means environmental friendly)
- Minimum with HR FR insulation.

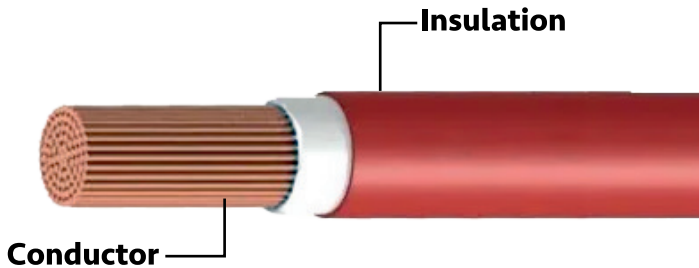
RESISTANCE OF THE WIRE

Resistance is a measure, which determines the amount of safe electric current a wire can safely carry. Hence all conductors used in cables should necessarily conform to the resistance parameter



MULTI-STRAND WIRE

FR-HR Cable



APPLICATIONS

Suitable for wiring in all types of residential and commercial infrastructure, where fire and electrical safety is utmost important.

TECHNICAL DATA

- Approvals:** ISI 694 marked
- Voltage Grade:** Up to and including 1100V
- Conductor:** Thin strands of electrolytic copper are multi-drawn for uniformity of resistance, dimension and flexibility. The strands are twisted with high precision to impact circularity for the conductor.
- Insulation:** Specially formulated heat resistant & flame retardant PVC insulation is used. The FR-HR property retards the propagation of flame without compromising safety.
- Insulation Conformity:** IS 5831, Type C - HR85 C + FR
- Colors:** Red,Black,Yellow,Blue,White,Green.
- Packing:** 90-meter coil is packed in protective cartons from 0.75 SQ mm to 6.0 SQ mm, from 10 SQ mm to 16 SQ mm coil is packed in protective bags.



CABLE DESIGN PARAMETERS

Nominal Cross Sec-tional Area (Sq. mm)	Number *Nominal Dia. of Strands	Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Max. DC Conductor Resistance at 20°C (Ω/km)	Current Rating (Amps) Casing
0.75	10/0.30	0.6	2.6	26	7
1.0	14/0.30	0.6	2.7	19.5	12
1.5	22/0.30	0.6	3.1	13.3	16
2.5	36/0.30	0.7	3.8	7.98	22
4	56/0.30	0.8	4.3	4.95	29
6	84/0.30	0.8	5.2	3.3	37
10	140/0.30	1.0	6.3	1.91	51
16	224/0.30	1.0	8.0	1.21	68
25	196/0.40	1.2	8.6	0.780	93

ALUMINIUM CABLES

Aluminum wire is a wire that is used for electrical wiring in houses, power grids and airplanes. Aluminum wire is an alternative conducting material considering its electrical and mechanical properties and price compared to copper wire.

Aluminum wire is used to make transmission cables. Aluminum wires are good conductors of electricity and also it is cheap metal easily available, light in weight and also very good ductility. All these properties of aluminum make it better to make transmission cables

TECHNICAL DATA

- **Approvals:** ISI 694 marked
- **Voltage Grade:** Up to and including 1100V
- **Conductor:** Solid electrolytic aluminum, drawn for uniformity of resistance, dimension and flexibility.
- **Insulation:** Insulation done with a specially formulated PVC compound of high insulation resistance & dielectric strength. Sheathing done with a specially formulated PVC compound having high oxygen and temperature index which eases stripping and helps withstand mechanical abrasion while in use
- **Colors:** Black
- **Packing:** Standard packing of 90 meters and 450 meters in coils, Longer length available on request.

Nominal Area	Form Conductor Circular	Minimum Thickness of PVC Inner Sheath	Nominal Diameter Outer (2 Core)	Nominal Thickness Outer (3 Core)	Nominal Thickness Outer (4 Core)
2.5 SQ MM	Solid	0.30	12.50	N/A	N/A
4.0 5Q MM	Solid	0.30	12.80	N/A	N/A
6.0 SQ MM	Solid	0.30	13.80	13.80	14.70
10.0 SQ MM	Solid	0.30	15	15	16.00
16.0 5Q MM	Solid	0.30	14	14	17.80
25.0 SQ MM	Multi	0.30	N/A	19.50	21
35.0 SQ MM	Multi	0.30	N/A	21.50	23.50
50.0 5Q MM	Multi	0.30	N/A	24.50	26

SUBMERSIBLE WIRE

TECHNICAL DATA

- **Approvals:** ISI 694 marked
- **Voltage Grade:** Up to and including 1100V
- **Conductor:** Thin strands of electrolytic copper are multi-drawn for uniformity of resistance, dimension and flexibility. The strands are twisted with high precision to impact circularity for the conductor.
- **Insulation:** Specially formulated PVC for core insulation, for higher current rating and overload capacity.
- **Packing:** Standard packing of 100 meters and 500 meters in coils, Longer length available on request.

CABLE DESIGN PARAMETERS

Conductor		Insulation Thickness (Nom.)	Sheath Thickness (Nom.)	Overall Dimensions		Conductor Resistance @ 20°C (Max) Ohms/km	Current carrying capacity
Nominal Area	Number /Dia of Strands			Width (approx) W' max.	Height (approx) H' max.		
sq.mm	mm	mm	mm	mm	mm	ohm/km	Amps
1.5	22/0.30	0.6	0.9	11	5	12.1	14
2.5	36/0.30	0.7	1	13.6	6	7.41	18
4	56/0.30	0.8	1	15.6	6.5	4.95	26
6	84/0.30	0.8	1.1	17.8	8.0	3.3	31
10	140/0.30	1.0	1.4	22.5	9.3	1.91	42

MULTI-CORE FLEXIBLE CABLES

APPLICATIONS

- PVC and FR PVC 70 ‘ C cables suitable for wiring in residential and commercial infrastructure.
- HR PVC 85.C cables are suitable for wiring in residential and commercial infrastructure for a higher ambient temperature.
- FR-LSH cables are suitable for wiring in public places like schools, hospitals, theatres, etc. These are also suitable for fire-prone areas and chemical factories

TECHNICAL DATA

- **Approvals:** ISI 694 marked,
- **Voltage Grade:** Up to and including 1100V
- **Conductor:** Thin strands of electrolytic copper are multi-drawn for uniformity of resistance, dimension and flexibility. The strands are twisted with high precision to impact circularity for the conductor.
- **Insulation:** Insulation done with a specially formulated PVC compound of high insulation resistance & dielectric strength. Sheathing done with a specially formulated PVC compound having high oxygen and temperature index which eases stripping and helps withstand mechanical abrasion while in use Insulation Conformity: IS 5831, Type C - FR70 C
- **Colors:** White, Black
- **Packing:** Standard packing of 90 meters and 450 meters in coils, Longer length available on request.

FLEXIBLE MULTI-CORE CABLES (UP-TO 24 CORE)

Nominal Cross Sectional Area	sq mm	0.5 mm	0.75 mm	1.0 mm	1.5 mm	2.5 mm	4.0 mm	6.0 mm	10.0 mm
No. Nominal Dia Of Wires (Max)	mm	7/ 0.3	10/ 0.3	14/ 0.3	22/ 0.3	36/ 0.3	56/ 0.3	84/ 0.3	140/ 0.3
No. Nominal Dia Of Wires (Max)	mm	0.6	0.6	0.6	0.6	0.7	0.8	0.8	1.0
D. C. Resistance Max At 20°c	mm	39	26	18.1	12.1	7.41	4.95	3.30	1.91
Thickness of Insulation (2 Core)	Ω/km	0.90	0.90	0.90	0.90	1.00	1.00	1.10	1.30
Approx Overall Dia (2 Core)	mm	6.00	6.30	7.10	7.70	8.80	10.2	12.5	16.4
Thickness of Insulation (3 Core)	mm	0.90	0.90	0.90	0.90	1.00	1.00	1.20	1.40
Approx Overall Dia (3 Core)	mm	6.30	6.70	7.60	8.10	9.50	11.2	13.5	17
Thickness of Insulation (4 Core)	mm	0.90	0.90	0.90	1.00	1.00	1.00	1.20	1.40
Approx Overall Dia (4 Core)	mm	6.80	7.30	9.60	9.60	10.6	12.2	15.3	19.2
Max Current Carrying Capacity	amps	4	7	12	16	22	29	37	40

Note: The conductor given above is indicative only and will be such that all requirements of strand diameter and conductor resistance as per IS:694 and IS:8130 are met.



SPEAKER WIRE

APPLICATIONS

Speaker cables are highly recommended for use in connecting speakers, public address system for clear and distortion-free voice with low dB loss.

TECHNICAL DATA

- Conductor:** Thin strands of electrolytic copper are multi-drawn for uniformity of resistance, dimension, and flexibility. The strands are twisted with high precision to impact circularity for the conductor.
- Insulation:** Specially formulated FR PVC insulation is used. Each core is uniquely designed for easy identification. In order to offer uniform capacitance throughout length the distance between the two conductors is maintained uniformly
- Color Availability:** Transparent/black/white with red tracer for polarity identification.
- Packing:** The delivery length is 90-meter coils.

CABLE DESIGN PARAMETERS

Nominal Cross Sectional Area (sq. mm)	Number *Nominal Dia. of Strand	Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Max. DC Conductor Resistance at 20°C(Ω/km)	Current Rating (Amps) Casing
0.5	16/20	0.6	2.4	39	4
0.75	24/0.20	0.6	2.6	26	7
1.0	32/0.20	0.6	2.7	19.5	12
1.5	30/0.25	0.6	3.1	13.3	16



CCTV CABLES

APPLICATIONS

These cables are specifically designed to transmit complete video frequency with minimum distortion or attenuation for security and surveillance. This Cable is offered in two variants that is 4+1 and 3+1 CCTV Camera cable.

PROPERTIES

CCTV cables are designed to optimize the quality of video signals. The dense tin-coated copper screen ensures complete elimination of EMI/RFI from video signals and also provides reduced DC resistance ground path. The multi-stranded construction offers better flexibility and reduced bending radius.

TECHNICAL DATA OF CCTV CABLES

- Conductor:** The central conductor is made of fine wires tin-coated electrolytic grade copper.
- Insulation:** The insulation provided over the conductor is of HDPE with high dielectric strength and low capacitance.
- Screen:** Annealed tin-coated copper 85% coverage approx.
- Sheath:** Black-colored PVC

POWER CORES

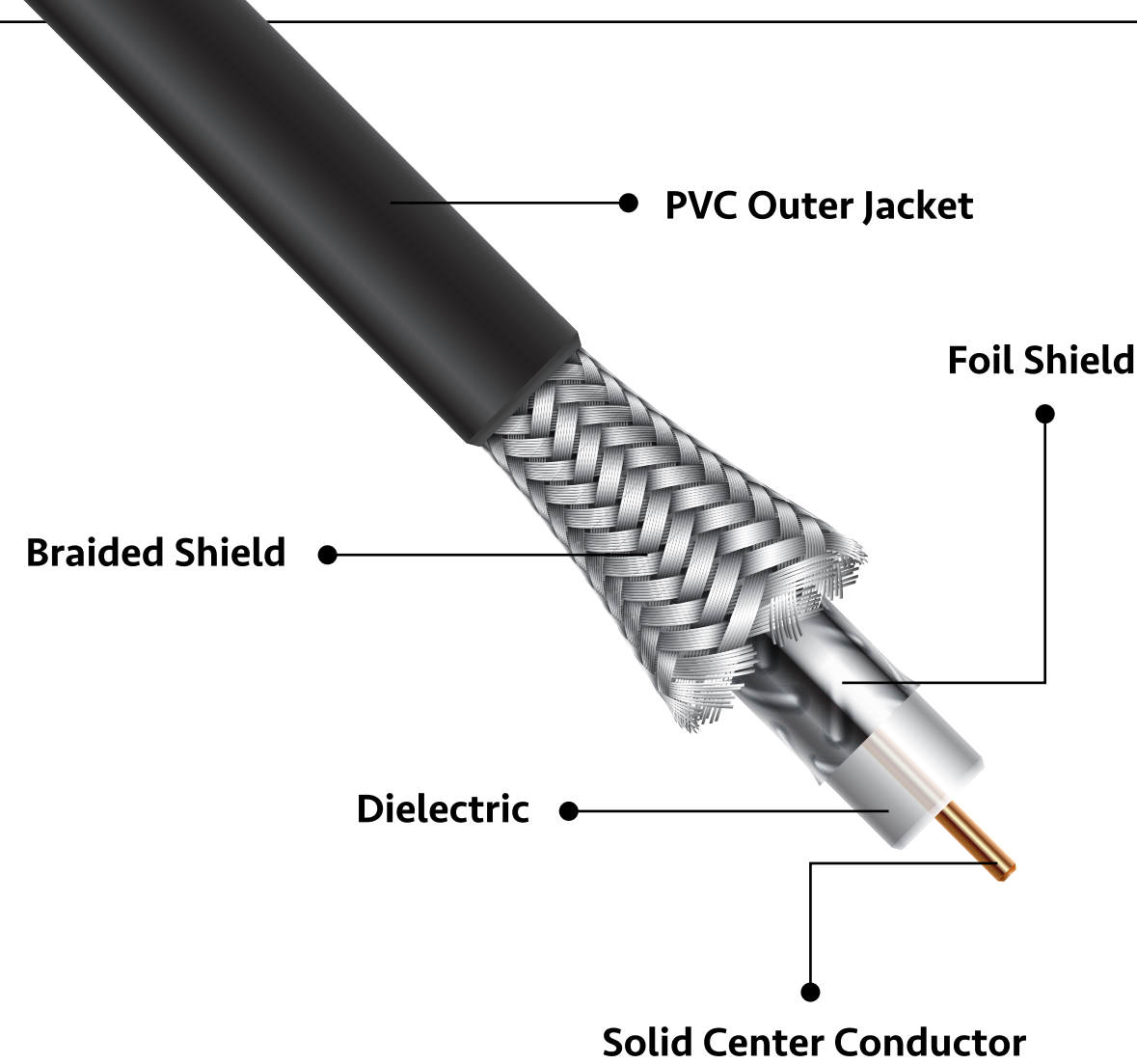
- Conductor:** The central conductor is made of fine wires tin-coated electrolytic grade copper.
- Insulation:** The insulation provided over the conductor is of PVC with high dielectric strength.
- Separator:** PETP tape.
- Sheath:** PVC
- Cable Color:** White, Black with UV resistance to ASTM G 154



CO-AXIAL WIRE

APPLICATIONS

High quality coaxial for cable TV network for notch-free attenuation values over a wide range of frequencies. The special jacketing offers increased life even in rugged conditions.



TECHNICAL DATA

- Conductor:** The central conductor is made of solid electrolytic grade annealed plain copper conductor, which has distinct advantage over traditional copper conductor.
- Insulation:** The insulation provided over the conductor is of foam PE which acts as a dielectric.
- Screen:** Aluminum mylar tape is provided over the insulated conductor to shield the conductor and ensure disturbance-free transmission of signals.
- Braiding:** The braiding is generally provided with 60% coverage of ATC (Annealed Tinned Copper)/Al alloy.
- Colors:** Black, White
- Packing:** Drum of 305-meter wire is packed in a bag.

CABLE DESIGN PARAMETERS OF COAXIAL WIRES

Construction Details		Cable Type		
		RG 59 F	RG 6 F*	RG 11 F
Part Number		010501010791	010501020791	010501030791
Inner Conductor		Copper	Copper	Copper
Nominal Diameter (mm)		0.8	1.02	1.63
Dielectric		Foam PE	Foam PE	Foam PE
Nominal Diameter (mm)		3.5	4.5	7.0
Outer Conductor	First	Bonded Al Type	Bonded Al Type	Bonded Al Type
	Second	Tinned Cu/Al Braid	Tinned Cu/Al Braid	Tinned Cu/Al Braid
Nominal Coverage (%)		60	60	60
PVC Jacket		Black	Black	Black
Nominal Cable Diameter (mm)		6.2	7.0	10.0
Nominal Cable Diameter (mm)		10.5	11.4	14.6

*RG 6 F is also available with CCS conductor and the applicable part number shall be 010501080791



ARMOURED CABLES

XLPE INSULATED ALUMINIUM ARMoured CABLES

APPLICATION :

Power cables for medium voltage (upto 3.3kv) are used in – outdoor cable ducts, cable trays, conduits or underground locations under mechanical stresses in power and switching stations, local distribution systems and industrial plants.

Standards	IS 8130 : 2013, IS 5831 : 1984, IS 7098 : 1 : 1988
Operating Temperature	90°C
Short Circuit Temperature	250 °C
Working Voltage	600/1000 Volts
Cable Range manufactured Sizes	50 sq.mm to 630 sq.mm in Single Core Cables 25 sq.mm to 400 sq.mm in Multi Core Cables

Test Voltage : 3300 V

CONSTRUCTION

Conductor	Aluminium Stranded compacted circular conductor conform to IS 8130 : 2013, Class 1 or Class 2.
Insulation	Cross linked polythylene to (XLPE)
Core Colour	single core - natural multi core - Numbered or colour polyster tapes applied over copper tapes
Bedding	Extruded PVC

Armour Single core - Non-magnetic (Aluminum) wire / Flat wire
Multi core - Galvanised steel wire / flat wire / Tape

Outer Sheath Extruded PVC / Special PVC compound such as Flame Retardant (FR), Flame Retardant Low Smoke(FRLS), Low Smoke Zero Halogen(LSOH) can be used for outer sheath to suit a variety of environment and fire risk conditions. Flamability test conforms to IEC 60332-1-2 : 2015 . For installation where fire and associated problems such as emission of smoke and toxic fumes offer a serious potential threat, special LSF (Low, smoke & fumes) compound can be provided. LSF compound is Halogen free (Fluorine, Chlorine, Bromine) when tested. The acid gas evolved during combustion is less than 0.5% by weight of material.

Minimum Bending radius - Fixed installation | 12 x Overall diameter

NOTES

[illegible]