



CABLES

Fast Green

Low Smoke Zero Halogen (LSZH) Products



Fast Green

Established in 1985, Fast Cables is the fastest-growing manufacturer of cables and conductors in Pakistan. Since the inception, our hallmark has been our superior quality. With a focused approach towards innovation and automation, Fast Cables has become the preferred cable brand of Pakistan.

To ensure the safety and security of our valued customers, we have introduced **Fast Green** Cables. In the event of a fire, these cables provide increased protection by eliminating hazardous halogens and producing minimal white fumes. Additionally, **Fast Green** cables qualify for LEED credits for buildings that meet LEED standards.

Our commitment to quality and dependability is reflected in **Fast Green** cables, which also offer the benefit of being eco-friendly.

Salient Features of **Fast Green** Cables:

- Maximum safety due to the absence of toxic gases & dense black smoke.
- Compliance with International standards such as BS & IEC.
- Enhanced flame retardancy to limit the propagation of fire.
- Improved tensile strength for durability.



Fast Green cables are compliant with BS & IEC standards & tested against the following parameters:

- IEC 61034-2: Measurement of smoke density of cables burning under defined conditions.
- IEC 60754: Test in gases evolved during combustion of materials from cables.
 - Part 1: Determination of halogen acid gas content.
 - Part 2: Determination of acidity (by pH measurement) and conductivity.

Low Voltage Cables

Cu / LSZH

Building Wires

Single Core Non-sheathed

Fire Retardant - Halogen Free

APPLICATIONS

Single core non-sheathed building wires for rated voltages up to 0.75kV are suited for applications such as:

- Indoor Use
- Fixed Installations
- Electrical Equipment
- Public buildings such as hospitals, hotels, shopping malls, airports, schools, etc.

CABLE CHARACTERISTICS

Cable Designation: Cu / LSZH

Conductor - Copper (Plain Annealed): Solid class 1, or stranded class 2, or Flexible class 5.

Insulation: LSZH - Low Smoke Zero Halogen thermoplastic compound, fire retardant.

Color and Cable Marking: Red, Yellow, Blue, Black, Green

Construction and Test Standards	IEC 60228 EN 50525-3-31
Rated Voltage U_0/U	450/750 V
Test Voltage	2500 V a.c. 5 minutes
Conductor Maximum Operating Temperature	70°C
Maximum Short-circuit Temperature	160°C ($t \leq 5s$)
Minimum Bending Radius (mm)	9 x d
Maximum Pulling Force Over Conductor (N)	15 x S
Flame Retardant	IEC 60332-1-2. EN 60332-1-2 (cable vertically mounted, length of charred cable ≤ 540 mm)
Fire Retardant	IEC 60332-3-24. EN 60332-3-24 (bunch of cables vertically mounted on a ladder, length of charred cable ≤ 2.5 m)
Halogen Free	IEC 60754-1. EN 50267-2-1 (halogen acid gas content $\leq 0.5\%$) IEC 61034-2. EN 61034-2 (cable light transmittance $\geq 60\%$) IEC 60754-2. EN 50267-2-2 (pH ≥ 4.3 Conductivity $\leq 10 \mu S/mm$)

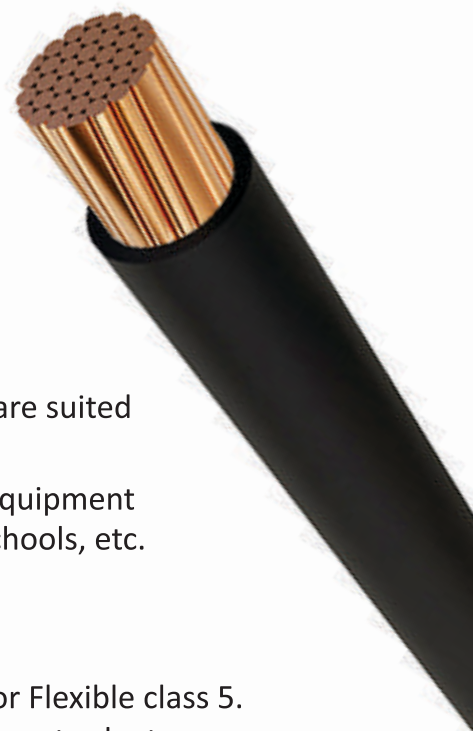
S = Conductor Cross-section (mm^2) d = Cable Outer Diameter (mm)

ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

Cable Composition n.° cond. x cross-section (mm^2)	(A) Nominal Thickness of Insulation (mm)	Approximate Outer Diameter (mm)	Approximate Weight (kg/km)	Maximum DC Resistance Conductor Class 1 & 2 Ω/Km at 20°C	Maximum DC Resistance Conductor Class 5 Ω/Km at 20°C	Current Carrying Capacity in Open T=30°C	
						2 Charged Conductors	3 Charged Conductors
1 x 1.5	0.7	3.0	20	12.1	13.30	17.5	15.5
1 x 2.5	0.8	4.0	35	7.41	7.98	24	21
1 x 4	0.8	4.5	50	4.61	4.95	32	28
1 x 6	0.8	5.0	70	3.08	3.30	41	36
1 x 10	1.0	6.5	110	1.83	1.91	57	50
1 x 16	1.0	7.5	185	1.15	1.21	76	68
1 x 25	1.2	9.5	270	0.727	0.780	101	89

Only one circuit is considered. Other compositions are available. Please contact: info@fast-cables.com

Fast Green



Low Voltage Cables

Cu or Al - XLPE - LSZH

Utility and Industrial Cables

Unarmoured - Fire Retardant

Halogen Free - IEC 60502-1

APPLICATIONS

Low Voltage Power Cables for rated voltages up to 3.3kV are preferred in applications such as:

- Outdoor use
- Fixed Installations
- Electrical Equipment
- Public buildings such as hospitals, hotels, shopping malls, airports, schools, etc.

CABLE CHARACTERISTICS

Cable Designation: Cu / XLPE / LSZH: **XZ1 (frt,zh)**; Al / XLPE / LSZH: **LXZ1 (frt,zh)**; F-Flexible

Conductor: Copper (plain annealed): solid class 1, or stranded class 2, or flexible class 5, circular or sector shape. Aluminum: stranded class 2, circular or sector shape.

Insulation: XLPE - (Cross-linked polyethylene)

Color and Cable Marking: Green or Black

Over Sheath: LSZH - Low Smoke Zero Halogen thermoplastic compound, fire retardant

Identification of Insulated Conductors: Insulation color for single core cables - Transparent
3/Core (Red+Yellow+Blue) and 4/Core (Red+Yellow+Blue+Black)

Construction and Test Standards		IEC 60228. IEC 60502-1
Rated Voltage U_0/U		0.5 / 1 kV
Test Voltage		3.5 kV a.c. 5 minutes
Conductor Maximum Operating Temperature		90°C
Maximum Short-circuit Temperature		250°C ($t \leq 5s$)
Minimum Bending Radius (mm)		
(permanent, after installation)		4xd if $d < 25$ - 5xd if $d \geq 25$ - 8xd if sector shape cond.
(during installation)		6xd if $d < 25$ - 9xd if $d \geq 25$ - 12xd if sector shape cond.
Maximum Pulling Force Over Conductor (N)		Copper - 50 x S Aluminum - 30 x S
Flame Retardant		IEC 60332-1-2 - EN 60332-1-2 (cable vertically mounted, length of charred cable ≤ 540 m)
Fire Retardant		IEC 60332-3-24 - EN 60332-3-24 (bunch of cables vertically mounted on a ladder, length of charred cable ≤ 2.5 m)
Halogen Free (zh)	Low Smoke	IEC 61034-2 - EN 61034-2 (cable light transmittance $\geq 60\%$)
	Low Toxicity	IEC 60754-1 - EN 50267-2-1 (halogen acid gas content $\leq 0.5\%$)
	Low Corrosivity	IEC 60754-2 - EN 50267-2-3 ($pH \geq 4.3$ conductivity $\leq 10 \mu S/mm$)

S = Conductor Cross-section (mm^2)

d = Cable Outer Diameter (mm)



ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

Cable Composition n.° cond. x cross-sec- -tion (mm ²)	Nominal Thickness of Insulation (mm)		Approximate Outer Diameter (mm)	Approximate Weight (kg/km)	Maximum DC Resistance at 20°C	Current Carrying Capacity in Open T=30°C	
						2 Charged Conductors	3 Charged Conductors
XZ1							
1 x 10	0.7		8.5	147	1.83	90	80
1 x 16	0.7		9.5	207	1.15	121	107
1 x 25	0.9		11.0	302	0.727	161	141
1 x 35	0.9		12.0	395	0.524	200	176
1 x 50	1.0		13.5	519	0.387	242	216
1 x 70	1.1		15.5	724	0.268	310	279
1 x 95	1.1		17.5	971	0.193	377	342
1 x 120	1.2		19.5	1205	0.153	437	400
1 x 150	1.4		21.0	1473	0.124	504	484
1 x 185	1.6		22.5	1839	0.0991	575	533
1 x 240	1.7		25.5	2381	0.0754	679	634
1 x 300	1.8		29.5	2989	0.0601	783	736
4 x 1.5	0.7		10.0	165	12.1		23
4 x 2.5	0.7		11.0	210	7.41		32
4 x 4.0	0.7		12.5	279	4.61		42
4 x 6.0	0.7		13.5	368	3.08		54
4 x 10	0.7		16.5	537	1.83		75
	PH	NE			PH	NE	
3x16+1x10	0.7	0.7	18.5	714	1.15	1.83	100
3x25+1x16	0.9	0.7	23.5	1037	0.727	1.15	127
3x35+1x16	0.9	0.7	24.0	1322	0.524	1.15	158
3x50+1x25	1.0	0.9	27.0	1781	0.387	0.727	192
3x70+1x35	1.1	0.9	31.5	2496	0.268	0.524	246
3x95+1x50	1.1	1.0	35.5	3372	0.193	0.387	298
3x120+1x70	1.2	1.1	39.0	4314	0.153	0.268	346
3x150+1x70	1.4	1.1	42.5	5149	0.124	0.268	399
3x185+1x95	1.6	1.1	45.0	6512	0.0991	0.193	456
3x240+1x120	1.7	1.2	53.0	8395	0.0754	0.153	538
LXZ1							
1x25	0.9		11.0	161			107
1x50	1.0		12.0	246			165
1x95	1.1		17.0	427			264
1x150	1.4		21.0	620			359
1x240	1.7		25.5	967			492

(1) Phase conductor sector shape.

(2) Installation in free air or on perforated cables tray, horizontal or vertical.

Only one circuit is considered.

Cable with 3 conductors: 2 charged conductors.

Cable with 4 conductors: 3 charged conductors.

For compositions of 4 conductors, the same characteristics apply if the fourth conductor is the earth conductor or neutral conductor.

Fast Green

Quality with
Responsibility

HEAD OFFICE

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