



# ZR CABLES INDUSTRY

01

## Company

# PROFILE

ZR Cables is a trusted leader in manufacturing high-quality **electric wires, cables, and conductors**. Equipped with advanced machinery and stringent quality control, we ensure superior performance and reliability. Our commitment to excellence makes us the preferred choice for all your electrical needs



### Deals in All Types of Cables Wires & Control



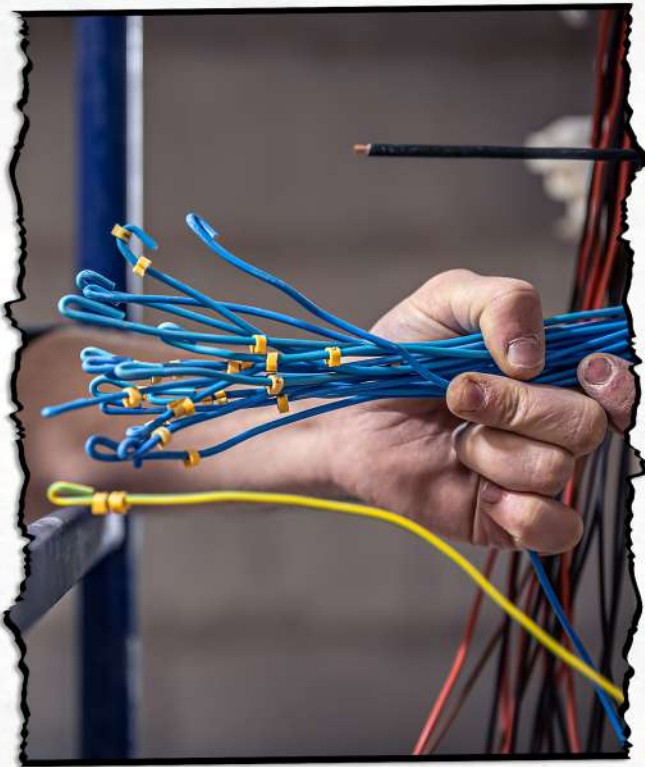
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✉ [Info@zrcablesindustry.com](mailto:Info@zrcablesindustry.com)  
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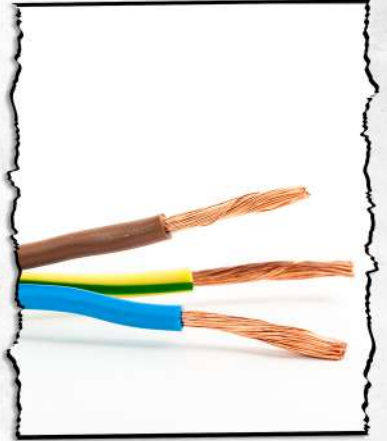
📍 Factory Outlet | Site Area, Karachi



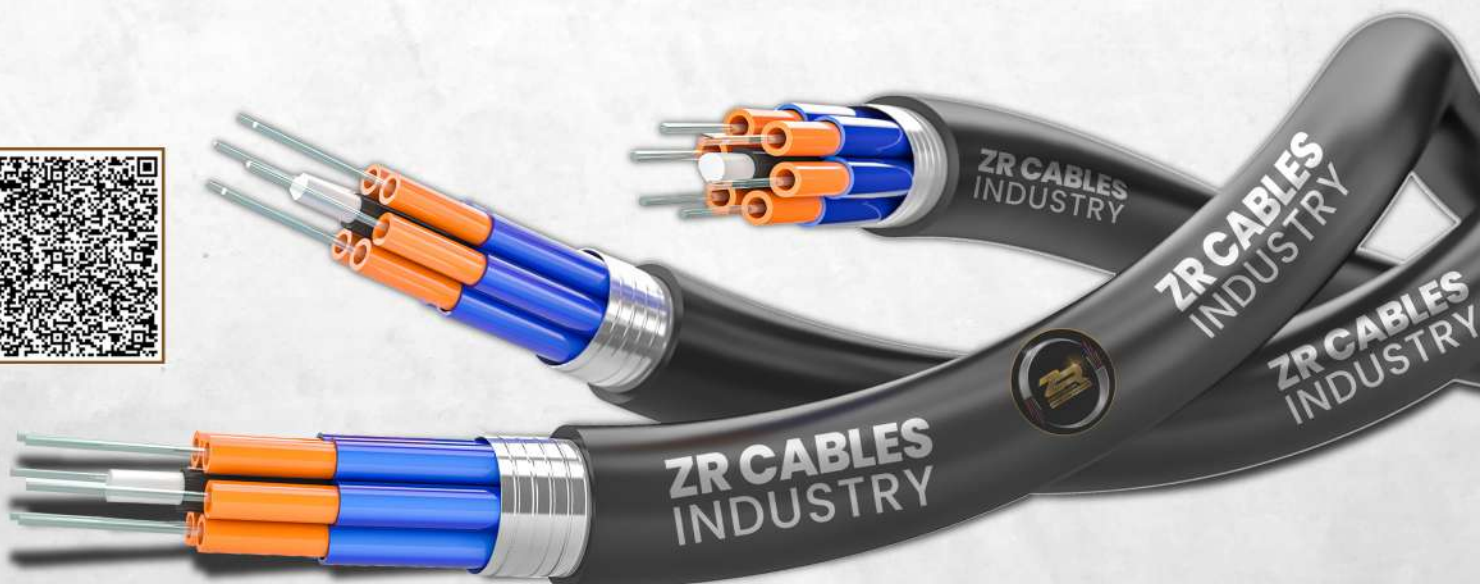




**ZR Cables** owes its success to advanced technology, rigorous quality assurance, and exceptional customer service. These factors enable us to deliver reliable and high-performance cables every time.



At **ZR Cables**, we use only the highest purity copper with a minimum of **99.99%** copper content, paired with premium fire-resistant PVC insulation. Our products are manufactured using the latest techniques, including American Extrusion Lines for XLPE-PVC, under the supervision of our skilled team at a state-of-the-art facility. Every product undergoes rigorous quality checks by globally recognized labs such as PSQCA, PCSIR, UET High Voltage Testing Labs, MIRDC, and AGS, ensuring compliance with international standards like IEC, BSS, 1183, ANSI, VDE, and DIN. This commitment guarantees that our cables are suitable for all electrical applications and come with a lifetime assurance of quality and reliability.



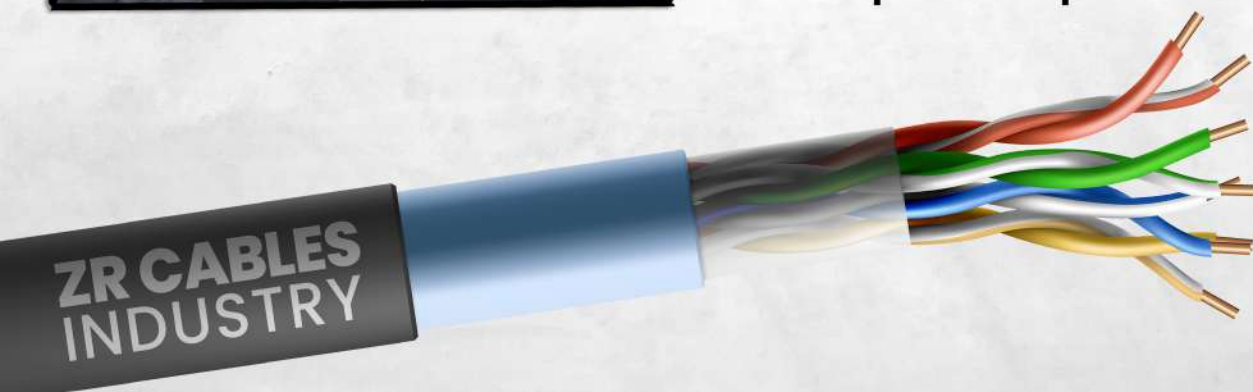




Our **vision** at **ZR Cables** is to continually improve production efficiency and quality. **Our strength** lies in our **skilled team** and a steadfast commitment to maintaining the highest standards of quality at every stage. We prioritize timely delivery and place customer satisfaction as our **first priority**.



At **ZR Cables**, our **mission** is to deliver the highest quality products while ensuring a safe and secure working environment for our team. We are dedicated to designing products that prioritize safety, reduce energy consumption, and minimize the use of natural resources, all while maintaining exceptional performance.







## **QUALITY POLICY**

At **ZR Cables**, we adhere to strict quality protocols at every production stage. From meticulous design **reviews** and **raw** material inspection to rigorous testing of finished **cables**, we ensure every product meets the highest standards. Key tests include **Copper Resistance**, Tensile Strength, **Elongation**, Insulation Resistance, **High Voltage**, **D.C. Resistance**, Spark, and Insulation Thickness tests. Quality and performance are our promise.

## **ISO CERTIFICATE**

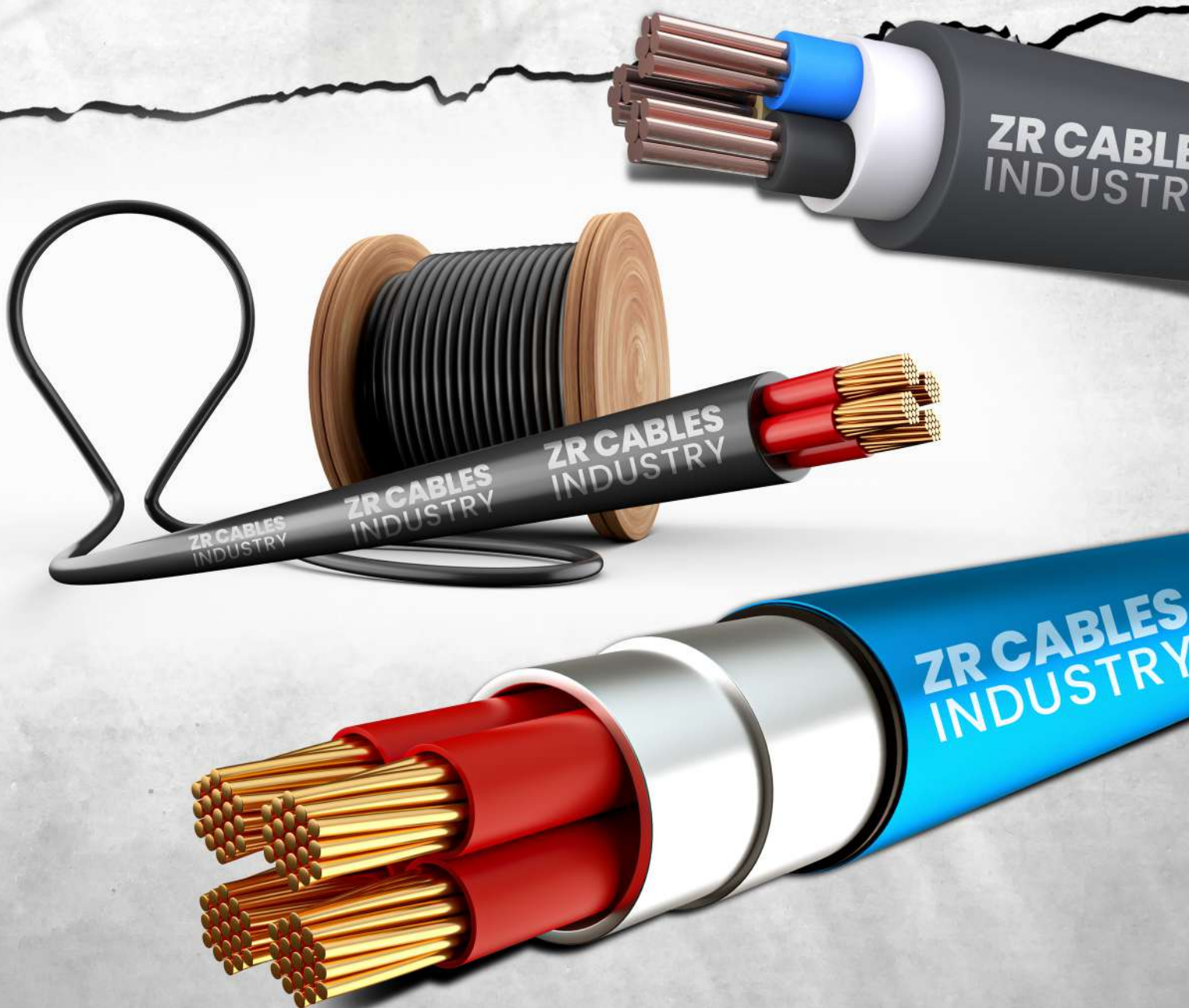
- ✓ Quality Management System (ISO 9001:2008)
- ✓ Quality Management System (ISO 9001:2015)
- ✓ Environmental Management System (ISO 14001:2015)







# **PRODUCT RANGE**







## GENERAL WIRING CABLES

- ✓ 1.0mm<sup>2</sup> to 16mm<sup>2</sup>
- ✓ 1/.044 to 7/.064

## LT POWER CABLES UNARMoured PVC/PVC & XLPE COPPER CONDUCTOR

- ✓ 1.0 mm<sup>2</sup> to 630mm<sup>2</sup> S/CORE, 2/ CORE, 3/ CORE, 4/CORE

## LT POWER CABLES UNARMoured PVC/PVC & XLPE COPPER CONDUCTOR

- ✓ 1.0 mm<sup>2</sup> to 630mm<sup>2</sup> S/CORE, 2/ CORE, 3/ CORE, 4/CORE

## LT POWER CABLES UNARMoured PVC/PVC & XLPE ALUMINUM CONDUCTOR

- ✓ 1.0 mm<sup>2</sup> to 630mm<sup>2</sup> S/CORE, 2/ CORE, 3/ CORE, 4/CORE

## LT POWER CABLES SWA ARMoured PVC/PVC & XLPE ALUMINUM CONDUCTOR

- ✓ 1.0 mm<sup>2</sup> to 630mm<sup>2</sup> S/CORE, 2/ CORE, 3/ CORE, 4/CORE

## FLEXIBLE CABLES PVC INSULATED, PVC/PVC & SHIELDED / BRAIDED

- ✓ 0.75mm<sup>2</sup> to 240mm<sup>2</sup> S/CORE, 2/ CORE, 3/ CORE, 4/CORE

## TELEPHONE CABLES PE/PVC

- ✓ Pair Cables

## TV CABLES/COAXIAL CABLES

- ✓ RG-6U RG-7U & RG-11U

## CONDUCTORS (COPPER & ALUMINIUM)

- ✓ Hard & Soft Drawn Bare Copper Conductor
- ✓ As per WAPDA & K-Electric Specifications

## SUBMERSIBLE CABLES

## INSTRUMENTATION CABLES

## RG-TYPE CABLES

## BARE COPPER CONDUCTORS & STRIPS

## CUSTOMIZED CABLES

## MV CABLES

## LT POWER CABLES WITH COPPER/ALUMINIUM CONDUCTORS



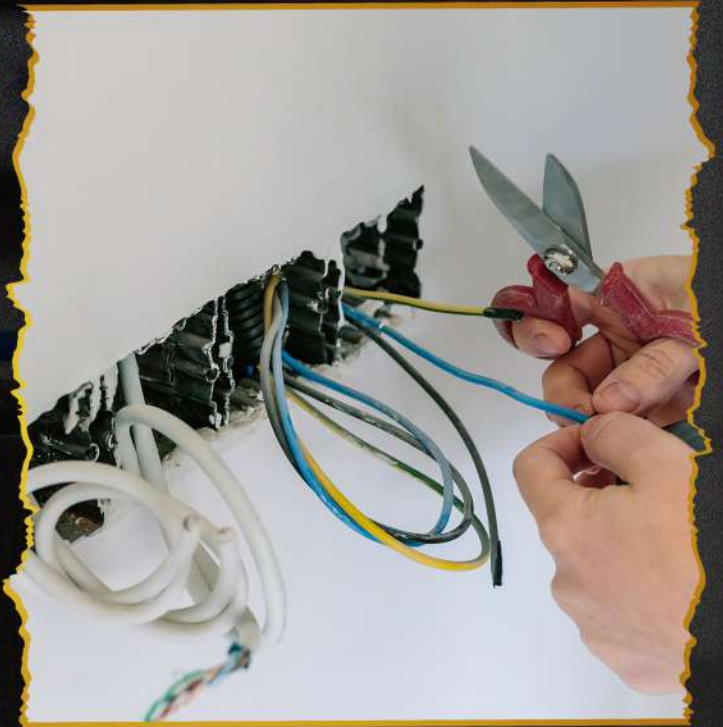




## **HOUSE WIRING:**

**Conductor. Cu.  
Insulation: PVC / LSZH**

- ✓ From 1 to 630mm<sup>2</sup>  
Rated Voltage: 300/500V, 450/750V
- ✓ Reference Standard: BS: 6004, 6360
- ✓ IEC: 60228, 60332-1



**-15°C**

-15°C Minimum Service temperature is -15°C

**70°C**

Conductor operating temperature 70°C for standard PVC and LSZH

**90°C**

Conductor operating Temperature 90°C for special HR PVC & XL-LSZH on request



Flame Retardant

**160°C**

160°C Maximum short-circuit temperature  
160°C for PVC & 250°C for XL-LSZH







# LOW VOLTAGE CABLES:

**Conductor: Cu. | Al**  
**Insulation: PVC | XLPE |**  
**LSZH Sheat: PVC | LSZH**



- ✓ Available in flexible Cu conductor also. From 1.5 to 1000mm<sup>2</sup>
- ✓ Rated Voltage: Up to 1KV
- ✓ Reference Sadard: BS: 6346, IEC: 60502-1, 60228, 60332-1

**-15°C** -15°C Minimum Service temperature is -15°C

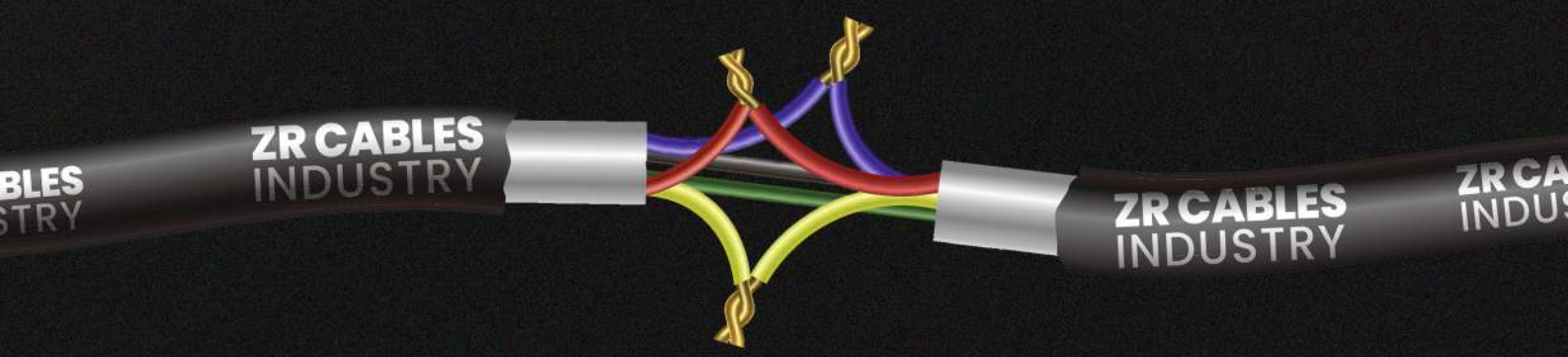
**70°C** Conductor operating temperature 70°C for standard PVC and LSZH

**90°C** Temperature 90°C for XLPE insulation

**160°C** Maximum short-circuit temperature 250°C 16°C for PVC & 250°C for XLPE

 Flame Retardant

 Indoor/outdoor Installation







# **FIRE RESISTANT CABLE:**

**Conductor. Cu.**  
**Fire Protection: Mica Glass**  
**Tape Insulation: XLPE**  
**Sheeth: LSZH**



- ✓ Available Single Core / Multicore as required
- ✓ Available Armoured / Unarmoured as required
- ✓ From 1.5 to 630mm<sup>2</sup>
- ✓ Rated Voltage: Up to 1KV

**70°C** Conductor operating temperature 70°C for standard LSZH insulation

**70°C** Conductor operating temperature 90°C for XLPE insulation

**250°C** Maximum short-circuit temperature 250°C for XLPE insulation

 Flame Retardant

 No Toxic Gases







# **SOLAR CABLE:**

**(SOLARFLEX X-PVI-F)**

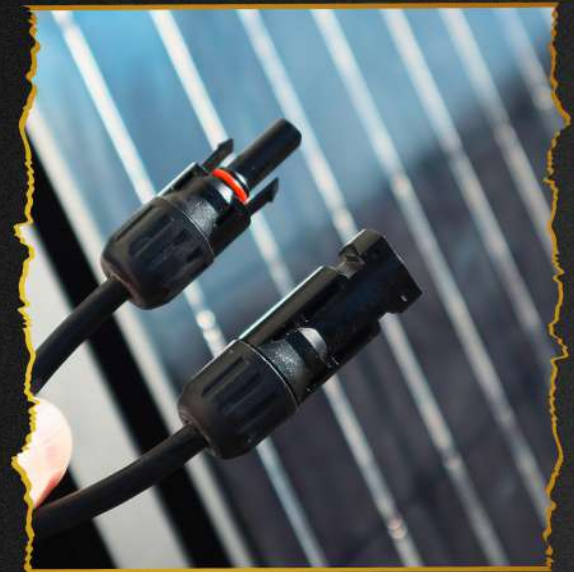
**Conductor. Tinned Flexible Cu.**

**Insulation: XLPE**

**Sheath: XLPO**

✓ **Rated Voltage: 1500V**

✓ **Reference Standard: BSEN: 50618, IEC: 60228, 60332-1 60754-1/2 & 61034**



**90°C**

Normal operating temperature 90°C.

**120°C**

Maximum operating temperature 120°C for 20,000 h

**250°C**

Maximum short-circuit temperature 250°C for 5 Sec

**25 Year**

Expected Life > 25 Years



**Flame Retardant**



**Indoor/outdoor Installation**



**No Toxic Gases**



**UV and Horizon resistant  
(Weather resistant)**







## **CONTROL CABLE:**

**Conductor. Cu | Flexible Cu.  
Insulation: PVC | XLPE | LSZH  
Sheath: PVC | LSZH**

- ✓ Available as per customer requirements
- ✓ Available Armoured / Unarmoured as required
- ✓ Rated Voltage: Up to 1 kV
- ✓ Reference Standard: IEC: 60502-1, 60228, 60332-1



**-15°C**

Minimum Service temperature is -15°C

**70°C**

Conductor operating temperature 70°C for standard PVC and LSZH insulation

**90°C**

Conductor operating temperature 90°C for XLPE insulation

**250°C**

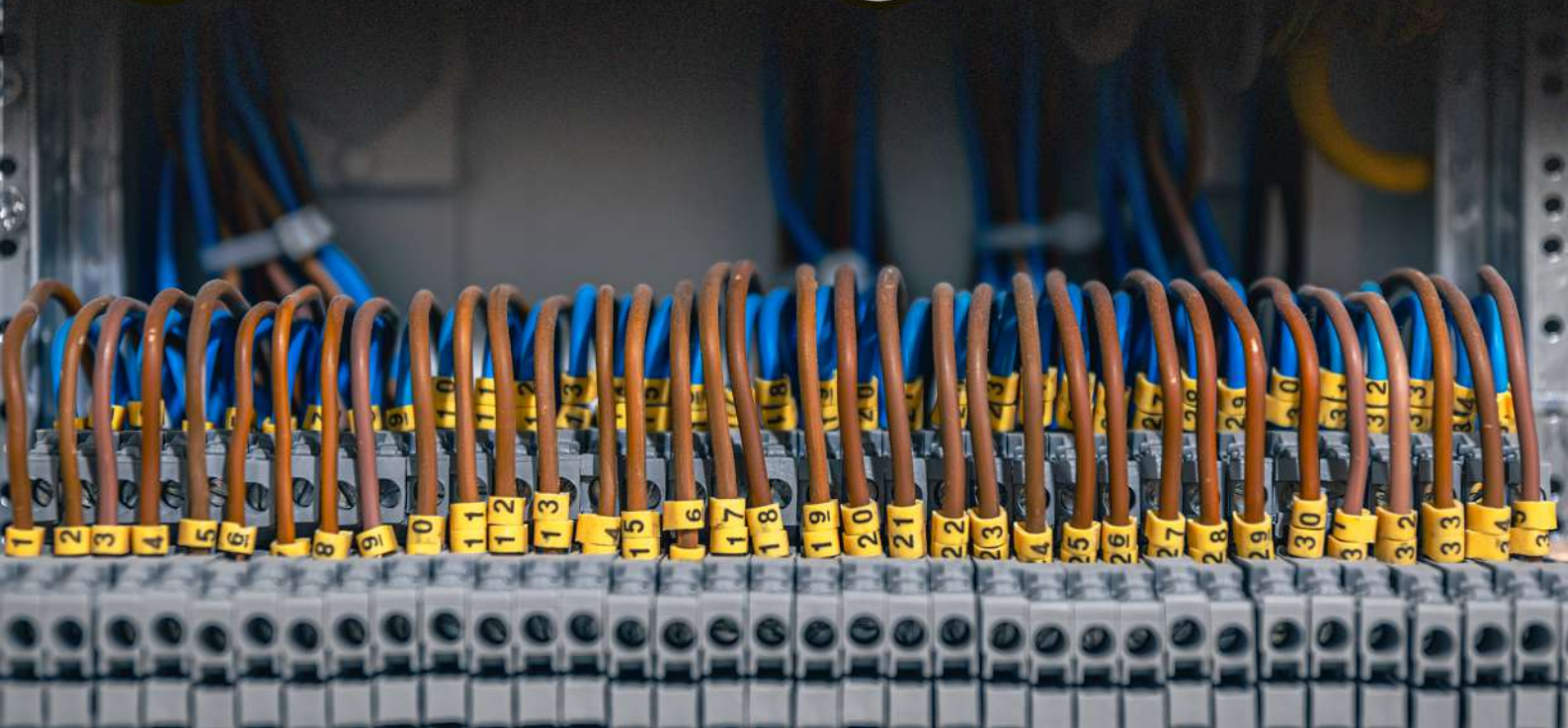
Maximum short-circuit temperature 160°C for PVC, LSZH & 250°C for XLPE



Flame Retardant



Indoor/outdoor Installation



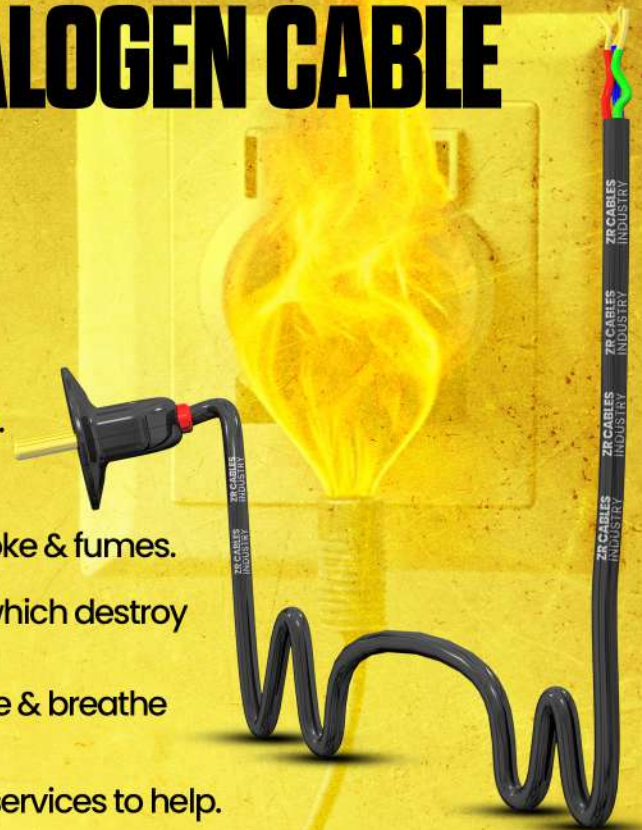




# LOW SMOKE ZERO HALOGEN CABLE

Zr cable is the pioneer in manufacturing LSZH cables with the following properties:

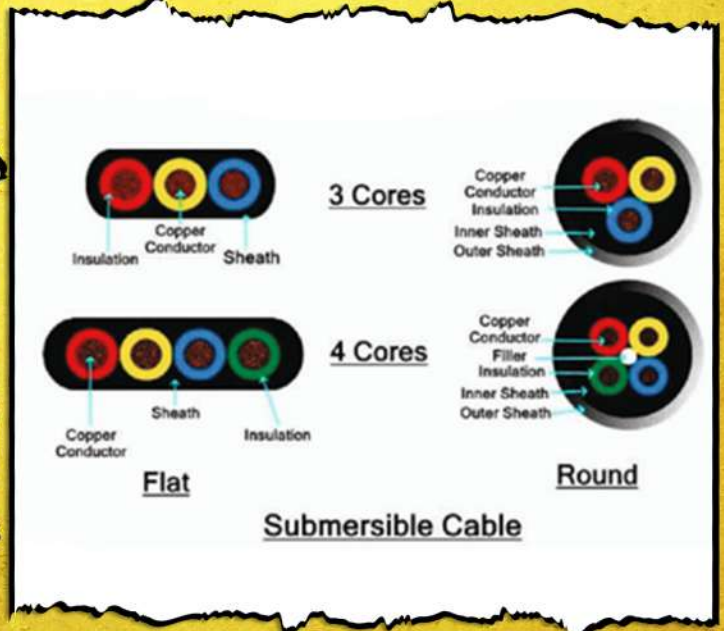
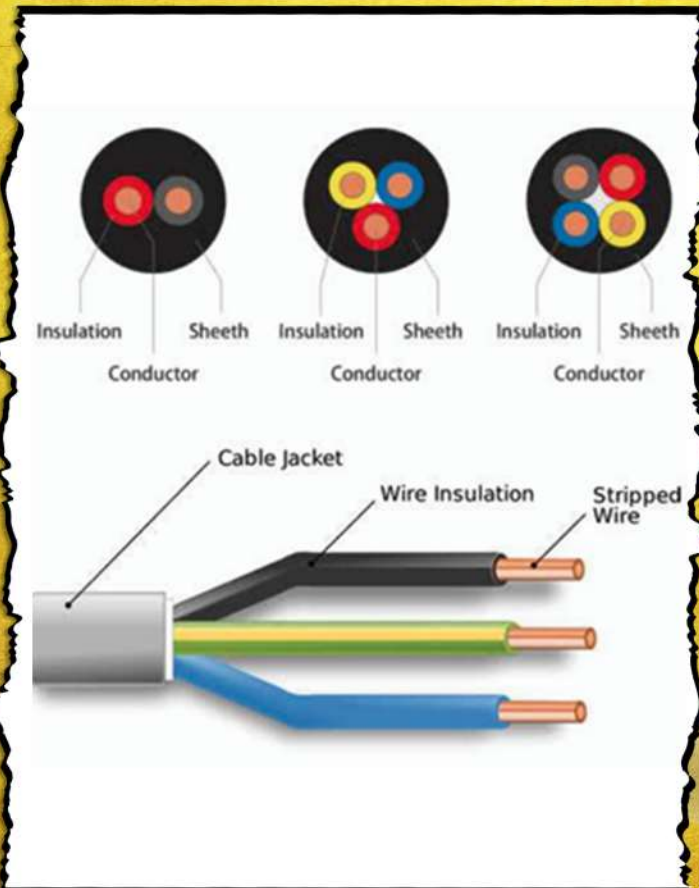
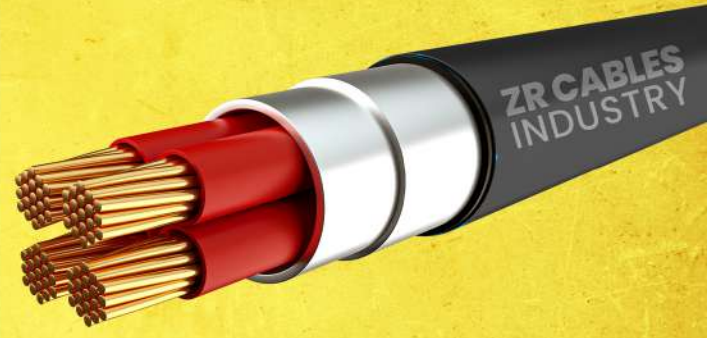
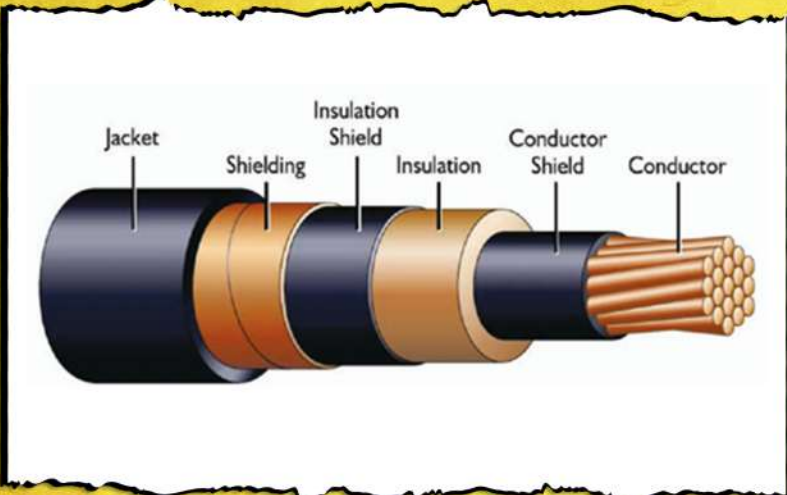
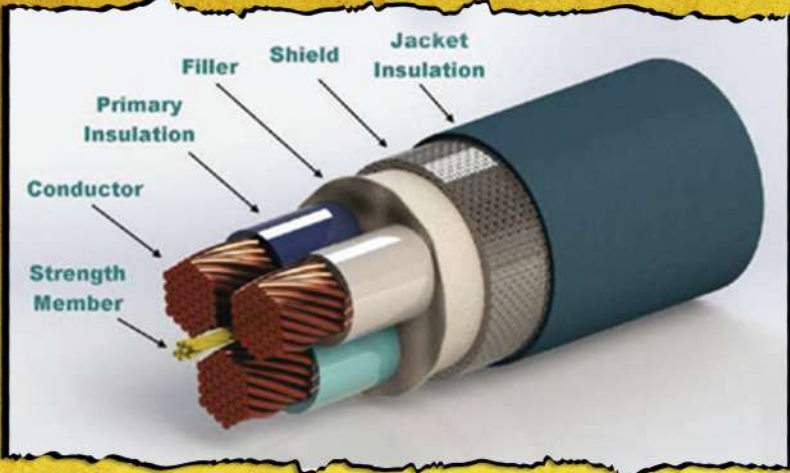
- ✓ Superior flame retardancy.
- ✓ Light & clear smoke is created during combustion.
- ✓ Greatly increase visibility in the event of a fire.
- ✓ Slow to ignite, burn slowly & gives off reduced smoke & fumes.
- ✓ Do not produce corrosive halogen acid gases which destroy sensitive electronic equipment.
- ✓ Helps people escape from a fire; helps them to see & breathe for longer.
- ✓ Wins time for people to escape & for emergency services to help.
- ✓ When tested to BS 6425 & IEC 60754 Part 1 & 2 the acidic gas evolved during combustion is less than 0.5% by weight of material.
- ✓ When tested in accordance with BS 2863, ASTM-D2863, the oxygen index of both bedding & sheath is up to 45% which is a better rating as mentioned is standard.







# Cable *Composition*







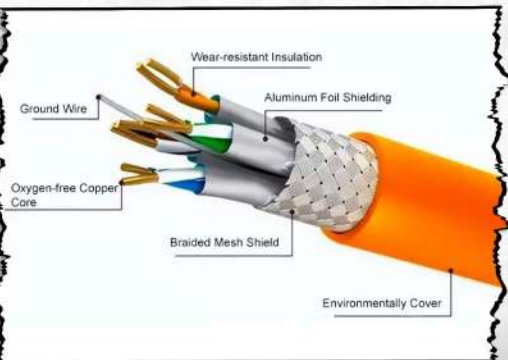
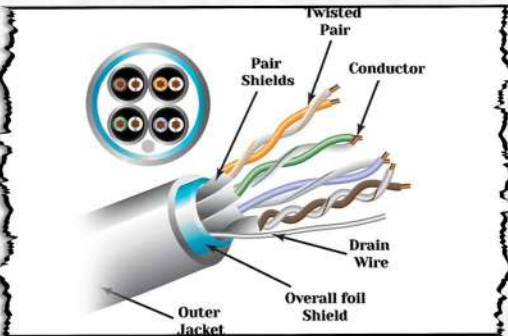
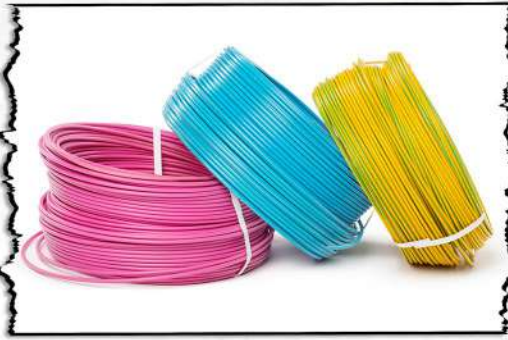
## ZR Cables Industry

Specializing in PVC wire and cable production, ZR Cables has consistently delivered premium quality products to the market on time. To maintain this standard, we have established a state of the art manufacturing facility in Lahore, Pakistan. ZR Cables provides top-notch, customized cable solutions, with over two decades of experience in producing high-quality PVC wires and cables. Our dedicated and skilled team works tirelessly to bring your ideas to life with precision and excellence."

At ZR Cables Industry, we pride ourselves on manufacturing products of the highest quality, using advanced manufacturing equipment and cutting-edge technology. Our wire products are recognized for their exceptional durability, superior finish, and remarkable tensile strength. To cater to the diverse needs of our clients, we also offer customization options. Our facility is equipped with state-of-the-art machinery, ensuring the production of flawless products. Additionally, we prioritize customer satisfaction by providing comprehensive after-sales support to clients nationwide.

ZR Cables' shielded cables ensure reliable performance by protecting against electromagnetic and radio frequency interference. Made with premium PVC and cutting-edge technology, they are durable, flexible, and ideal for industrial and telecom applications. Trust ZR Cables for high-quality, customized shielded solutions crafted with over 20 years of expertise.

ZR Cables' braided shielded cables offer superior protection against electrical interference, ensuring uninterrupted performance. Constructed with durable materials, they are flexible and reliable for demanding industrial and telecom applications. Our advanced production process and customization options guarantee a perfect fit for your specific needs.







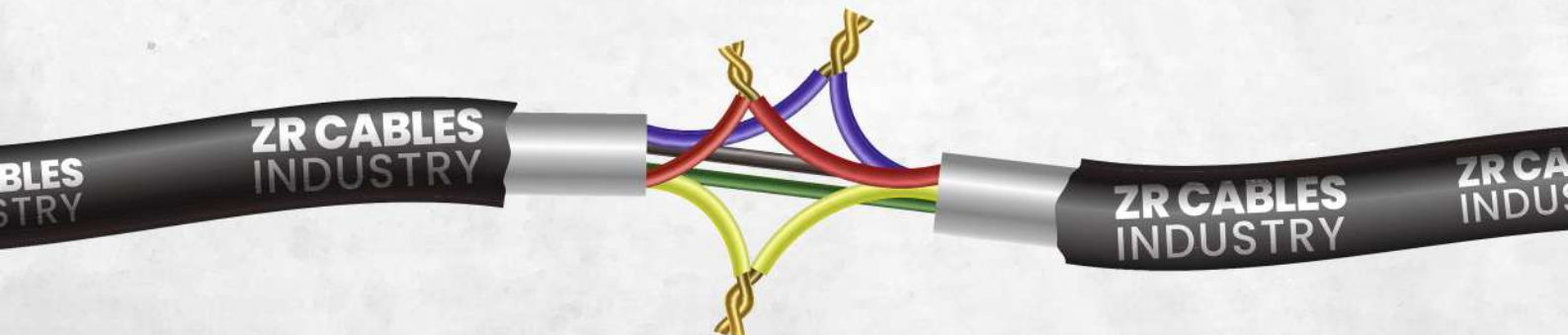
# RATING FACTORS

Rating factors of ambient air temperatures other than 30 C to be applied to the current capacities for cables in free air.

AMBIENT TEMPERATURE	PVC	XLPE
25	1.03	1.02
30	1.00	1.00
35	0.94	0.96
40	0.87	0.91
45	0.79	0.87
50	0.71	0.82
55	0.61	0.76
60	0.50	0.71
65	-	0.65
70	-	0.58
75	-	0.50
80	-	0.41
85	-	-
90	-	-
95	-	-

Rating factors of ambient ground temperatures other than 20 C to be applied to the current capacities for cables buried to ground.

GROUND TEMPERATURE	PVC	XLPE
10	1.10	1.07
15	1.05	1.04
20	1.00	1.00
25	0.95	0.96
30	0.89	0.93
35	0.84	0.89
40	0.77	0.85
45	0.71	0.80
50	0.63	0.76
55	0.55	0.71
60	0.45	0.65
65	-	0.60
70	-	0.53
75	-	0.46
80	-	0.38







## Our Manufacturing range with Comparison of Imperial and Metric Sizes of Cables and Current Ratings

IMPERIAL Standing formation	CONVERTED TO mm <sup>2</sup>	NEAREST Available Metric Size (mm <sup>2</sup> )	CURRENT in Amperes
1/.044"	0.981	1.0	13.5
3/.029"	1.290	1.5	17.5
3/.036"	1.970	1.5	17.5
7/.029"	2.982	2.5	24.0
7/.036"	4.597	4.0	32.0
7/.044"	6.861	6.0	41.0
7/.052"	9.591	10.0	57.0
7/.064"	14.528	16.0	76.0
19/.052"	26.003	25.0	101.0
19/.064"	39.434	35.0	125.0
19/0.72"	49.909	50.0	151.0
19/0.83"	66.323	70.0	192.0
37/.072"	97.191	95.0	232.0
37/.083"	129.156	120.0	269.0
37/.093"	162.153	150.0	300.0
37/.103"	198.899	185.0	341.0
61/.093"	267.333	240.0	400.0
61/.103"	327.915	300.0	458.0
91/.093"	398.809	400.0	546.0
91/.103"	489.185	500.0	617.0
127/.103"	682.709	630.0	694.0
Flexible Cables	Flexible Cables	Flexible Cables	Flexible Cables
14/.0076"	0.409	0.5	03
23/.0076"	0.613	0.75	06
40/.0076"	1.171	1.0	10
70/.0076"	2.049	1.5	16
110/.0076"	3.219	2.5	25
162/.0076"	4.	4.0	32



## US-AMERICAN AND BRITISH UNITS

Conversion of usual measuring units

(Units for cables and wires)

In the US the measurements are mainly used in AWG-numbers (AWG = American Wire Gauge). The AWG-numbers conform the British B&S-numbers (B&S = Brown & Sharp)

AWG	mm <sup>2</sup>	AWG	mm <sup>2</sup>	AWG	mm <sup>2</sup>	AWG	mm <sup>2</sup>
30	0.05	18	0.75	6	16	300 MCM	150
28	0.08	17	1.00	4	25	350 MCM	185
26	0.14	16	1.5	2	35	500 MCM	240
24	0.25	14	2.5	1	50	600 MCM	300
22	0.34	12	4	2/0	70	750 MCM	400
21	0.38	10	6	3/0	95	1000 MCM	500
20	0.50	8	10	4/0	120		

## LATEST CABLES COLOR CODES


NO. OF CORES	COLOURS TO IEC 60502-1	COLOURS TO BS 5467 (A:2008)
1	Red or Black	Brown or Blue
2	Red & Black	Brown & Blue
3	Red, Yellow and Blue	Brown, Black and Grey
4	Red, Yellow, Blue and Black	Blue, Brown, Black and Grey
5	Red, Yellow, Blue, Black and Green/Yellow	Green/Yellow, Blue, Brown, Black and Grey







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