



# Allied Cables

**Guaranteed High Conductivity 99.99% Pure Copper Product,**

**QUALITY CERTIFIED : ISO 9001:2000 & PSQCA**

The Largest Manufacturers of Copper Products in Pakistan

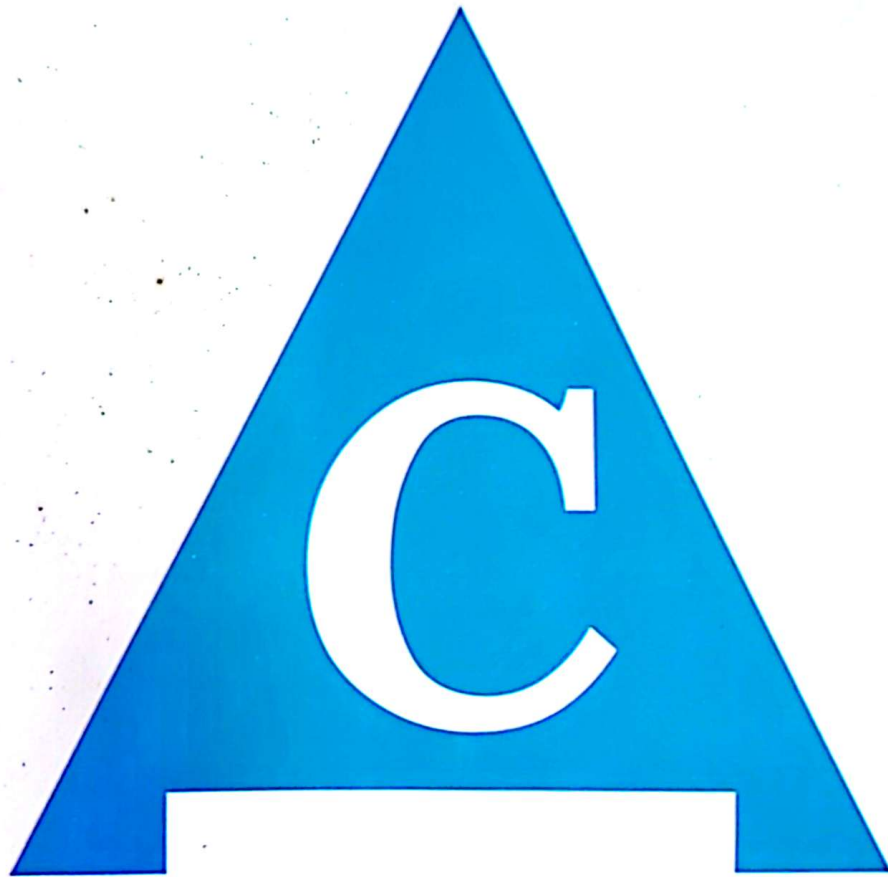
## **XLPE INSULATED CABLES**

To BSS 5467 and IEC-60502-1



**Brands  
of the year  
Award**





# **Allied Cables**

The Largest Manufacturers of Copper Products In Pakistan



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## ABOUT US

The foundation of **Allied Group** was laid by Mr. Aftab Ahsan in the year 1981, keeping in view the growing demand of quality product of **Manufacturing Copper Rod, Enameled Copper Wire and Copper Strip**. The Group Imported latest Furnace and plant for manufacturing Copper Rod. **These products initially were manufactured under the technical Collaboration of Hitachi Japan.**



## VISION

It is our goal to lead our core segments by manufacturing **quality products** and employing **State of the art** technologies, consistently grow, Spending wisely, and ensuring best returns for our investments and always comply with legal, Ethical, and **environmental standards** and to remain secure in a fiercely **competitive market** by believing in our people, who in turn will ensure our performance exceeds all **competitor**.



## (TECHNICAL COLLABORATION )

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### **QINGDAO KIND JINXIU WIRE & CABLE CO., LTD.**

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Address:-

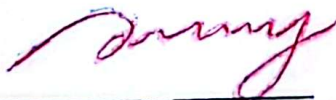
1401, UNIT 2, BUILDING No.16,  
No. 51, DONGHAI XI ROAD,  
QINGDAO, P.R. CHINA  
PHONE # 0086 - 13305325206  
MOBILE # 0086-532-85733391

### **TO WHOM IT MAY CONCERN**

Dear Sirs,

An agreement has been drawn up between M/s. Qindao Kind Jinxiu Wire & Cable Co. Ltd. and Allied Industries Hub (Pvt.) Ltd. Located at R.K.Square 4<sup>th</sup> floor, Shāhrah-e-Liaquat, Karachi, Pakistan. On Oct. 27, 2006 according to which this group had developed certain technological expertise in the manufacture & know-how of production of cables, would, provide technical collaboration to Allied Industries Hub (Pvt.) Ltd., to develop Cable in range as required by them. This Group will provide all technical assistance continuously and our Engineers on request will be available to visit Allied Cables facilities to provide immediate assistance.

The duration of this collaboration is not limited to certain time frame work but will be continues so long Allied Group achieved all technical know-how. According to our knowledge Allied Group in Pakistan has largest manufacturing Industries of Copper Rod, Enameled Copper Wire and Copper Strip which is being used to its full capacity & further expansion is under progress.



Qingdao Kind Jinxiu Wire & Cable Co., Ltd.



Allied Industries Hub (Pvt.) Ltd.

# PEL

## PAK ELEKTRON LIMITED

Works : 14-Km, Ferozepur Road, Lahore-54760, Pakistan.  
G. O. O. Box : 1614, Lahore - 54000  
Phones: 5811952 - 57 (6 Lines) Telex : 44249 PEL PK.  
Grams : PELEKTRON Lahore Fax : 5810156- 5822682  
E-mail: cfm@pel.icci.lhr.erum.com.pk

No. P&P/-


Date 08-11-98

### To WHOM IT MAY CONCERN

Certified that we have been getting Enamelled Copper Wire "Moon Star Brand" produced & supplied by M/s.Allied Industries Hub (Pvt) Limited, Karachi since 1985. We have also been using their Allied Copper Rod for manufacturing of Copper Strip.

Our entire requirement for manufacturing of transformers for WAPDA & KESC have been full filled by them & we found the material to our entire satisfaction,

for PAK ELECTRON LIMITED

  
(S.M. USMANI)  
GENERAL MANAGER PROD. (T&M)



# PHILIPS

## Philips Electrical Industries of Pakistan Limited

F-54, S.I.T.E., P.O. Box No. 7101, Karachi-75730. Tel: 021-2560071-82 Fax: 021-2563826 / 2562386

JAN 02 , 2003

### TO WHOM IT MAY CONCERN

It is certified that we are procuring Enameled Copper Wire under the brand name 'Moon Star' which is produced and supplied by M/s Allied Industries Hub (Pvt.) Limited, Karachi.

We have been doing business with M/s Allied Industries since 1996 and maintain that our entire requirements for Copper Wire have been fulfilled by them over these years with the material being as per our specifications.

FAISAL RAZI AZEEM

Logistics Officer

Philips Lighting Pakistan



# SIEMENS

October 31, 2006

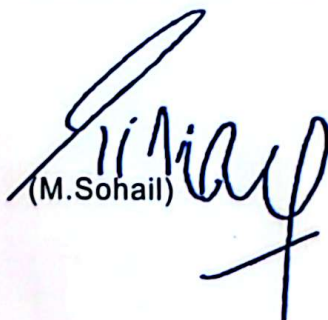
TO WHOM IT MAY CONCERN

This is to certify that we purchased 'MOON STAR' Brand Copper Enameled Wire from M/S. ALLIED INDUSTRIES HUB (PVT) LTD., Karachi since 1995.

Our entire requirement for manufacturing of transformer and motors have been fulfilled by them and we are fully satisfy for the material supplied by them as per our specifications.

Further certified that we have not received any complaint In quality during these years.

**SIEMENS PAKISTAN ENGINEERING CO. LTD**

  
(M. Sohail)

  
(Irfan Umar)





## Quality Certifications

- ☞ TQCSI ISO 9001:2000
- ☞ PSQCA Certification
- ☞ PCSIR Laboratories

## Prequalification

- ☞ KESC - Karachi Electric Supply Company
- ☞ HESCO - Hyderabad Electric Supply Company
- ☞ Karachi Shipyard & Engineering Works Ltd.
- ☞ SSGC - Sui Southern Gas Company
- ☞ CAA - Civil Aviation Authority
- ☞ MES Military Engineering Services
- ☞ D.H.A. Karachi
- ☞ D.H.A. Lahore
- ☞ D.H.A. Islamabad
- ☞ Export Processing Zone
- ☞ Areva T&D
- ☞ Parco

## Approved Consultant

- ☞ National Engineering Services Pakistan
- ☞ KP Associates
- ☞ WJ Associates
- ☞ Jafri & Associates - Consulting Engineers
- ☞ Matrix Consultant
- ☞ EA- Consulting (Pvt. Ltd.)
- ☞ A-S Consultant
- ☞ Eleken Associates
- ☞ United Consultant
- ☞ Advance Engineering Associate
- ☞ Osmani & Co.
- ☞ NEO Consultant
- ☞ Excellent Associates
- ☞ Vital Associates



## General Specification

**XLPE insulated, PVC sheathed, non-armoured and armoured, power cables, 600/1000 V and 1900/3300 V to BS 5467 & IEC-60502-1**

### 1. Rated Voltage

600/1000 V & 1900/3300 V

(Eo/E; Eo volts between conductor and earth, E volts between conductors).

### 2. Conductors

The conductors shall be plain annealed copper conductor or aluminum conductor, complying with BS 6360 and IEC 60228. The conductors may be circular solid, circular stranded, circular compacted or shaped stranded as indicated in construction tables.

### 3. Insulation

The insulation shall be cross-linked polyethylene compound complying with appropriate requirements of and the applicable standards as referred to therein. The insulation is applied by the extrusion process and cross-linked to form a layer of compact and homogeneous insulation to withstand all physical and electrical tests including the compliance for spark testing. The test requirements are planned and performed in accordance with the applicable clauses.

### 4. Identification of Cores

The cores identification for all cables is done by colours or by numbers as indicated in the table below. The cores shall be identified by colour of XLPE compound or number printed on the surface of insulation.

-Single-core	: Red or black
-Twin	: Red and black
-Three-core	: Red, yellow and blue
-Four-core	: Red, yellow, blue and black
-Auxiliary cables	1, 2, 3, 4, 5, 6, 7 .....in upward sequence.

### 5. Laying Up

The cores for all cables shall be laid up with right hand direction for lay up to and including 7 cores and alternating left of right hand direction of lay for multi layer core assembly. The fillers where necessary shall be non-hygroscopic, may be integrally applied to make a reasonably circular core assembly ensuring the possibility to remove the bedding and or fillers from the cable without damaging the insulation.

### 6. Bedding

An extruded layer PVC bedding of appropriate grade for armoured cables 600 / 1000 V & 1900 / 3300 V to be provided.

### 7. Bedding

A layer of round armour wire (Galvanized steel wire or plain aluminum wire as applicable) to be provided over PVC bedding.

### 8. Oversheath

The oversheath will consist of black PVC compound complying with the appropriate requirements (including compatibility)

The oversheath of all armoured cables shall be spark tested (BS 5099)

### 9. Marking & end sealing

The ends of each cable having three or more cores and size 25 mm<sup>2</sup> and above shall be marked with red or green with cores clockwise or anti-clockwise respectively.

### External marking

The external surface of all shall be legibly marked with the following elements: The marking of item (a) to (d) shall be embossed or indentation.

#### Elements

- a) Electric cable
- b) Voltage designation

#### Example of marking

ELECTRIC CABLE  
 600/1000 V, 3300 V,  
 600/1000 AUX.  
 YYY  
 50 mmSQ  
 50 mmSQ

**Note:** The height of the legend elements and other requirements with respect to tabulated approximate diameters of cables (above 15mm/below 15 mm). The above elements will be provided throughout the length of the cable repeating at intervals not exceeding 550 mm for item (a), (b) and c, and not exceeding 1100 mm for items (d) and (e). Both ends of every length of cable shall be sealed in such a manner that it includes the oversheath.

### Year of Manufacture

It shall be provided throughout the length of cable. If on the surface to comply with 14.2(d) & (e) and internal not greater than 550 mm.

### 10. Minimum internal radii of bends in cables for fixed wiring

The radius of every bend in wiring system shall be such that conductors and cables shall not suffer damage.

### 11. Tests on Finished Cables

The following cable integrity tests are carried out on 100% factory lengths in accordance with the applicable cable standard.

- Cable Marking
- Conductor resistance test
- Armour resistance test
- Voltage test
- Compatibility test
- Test for flame propagation of single cable





# Allied Cables

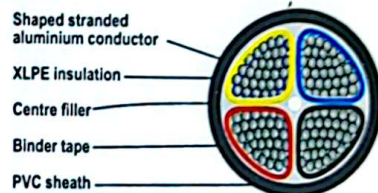
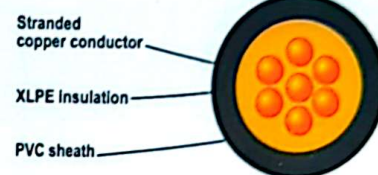
Guaranteed High Conductivity 99.99% Pure Copper Product, BS 8894

QUALITY CERTIFIED : ISO 9001:2000 & PSQCA

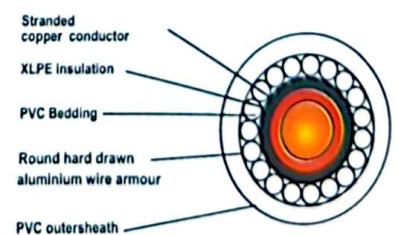
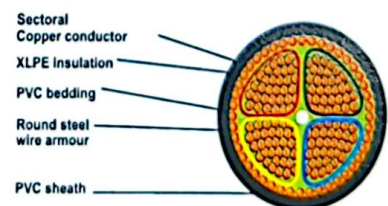
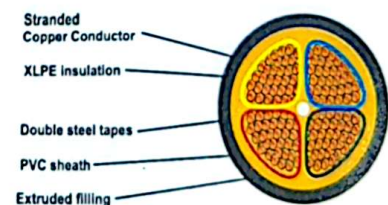


## Cable constructional (Figurative) description for various core configuration and conductor material.

Single core and multicore cables with copper or aluminum XLPE insulated, non-armoured overall PVC sheathed 600/1000 V conforming to IEC-60502-1



Single core and multicore cables with copper or aluminium XLPE insulated, armoured overall PVC sheathed 600/1000 V and 1900/3300 V conforming to IEC-60502



600 / 1000 V

Construction data tables for non-armoured and armoured cables.





## Dimensions & Weights

Table 1

### XLPE Insulated Power Cables

600 / 1000 V Unarmoured and single wire armoured, PVC over-sheathed cables.

IEC 60502-1

Nominal Area of Conductor		Nominal Thickness of Insulation	Unarmoured			Armoured			
			Approx. Cable Diameter overall	Approximate Cable weight		Armour Wire Diamater	Approx. Cable Diameter overall	Approximate Cable weight	
				Copper	Aluminium			Copper	Aluminium
mm²		mm	mm	Kg / km		mm	mm	Kg / km	
S I N G L E C O R E	^ 1.5	0.7	7.08	50	-	-	-	-	-
	^ 2.5	0.7	8.20	70	-	-	-	-	-
	* 4.0	0.7	8.70	90	-	-	-	-	-
	* 6.0	0.7	9.20	110	-	-	-	-	-
	* 10	0.7	10.10	160	-	-	-	-	-
	* 16	0.7	11.00	210	110	+ 1.25	15.20	360	260
	* 25	0.9	12.00	320	160	+ 1.25	16.10	480	320
	* 35	0.9	13.30	420	190	+ 1.25	18.00	600	380
	* 50	1.0	14.30	540	240	+ 1.25	19.20	790	490
	* 70	1.1	16.40	760	330	+ 1.25	20.40	1030	600
	* 95	1.1	18.40	1030	430	+ 1.25	22.60	1370	770
	* 120	1.2	20.30	1280	520	+ 1.60	25.10	1660	900
	* 150	1.4	22.30	1560	630	+ 1.60	26.80	1960	1030
	* 185	1.6	24.50	1940	770	+ 1.60	29.10	2380	1210
	* 240	1.7	27.30	2460	930	+ 1.60	32.20	3000	1470
	* 300	1.8	30.00	3150	1220	+ 1.60	38.10	3660	1730
	* 400	2.0	34.47	4160	1700	+ 2.00	24.00	4730	2250
^ 500	2.2	35.00	5040	1900	+ 2.50	47.20	5840	2700	
^ 630	2.4	43.50	6680	2680	+ 2.50	53.00	7880	3880	
^ 800	2.6	48.70	8300	3110	+ 2.50	57.90	9560	4360	
^ 1000	2.8	54.00	10400	3850	+ 2.50	63.00	11800	5250	

\* Circular/Circular Compacted Stranded Conductors

# Shaped Stranded Conductors

+ Aluminium Wire Armoured

^ Circular Solid Conductor



## Dimensions & Weights

Table 2

### XLPE Insulated Power Cables

600 / 1000 V Unarmoured and single wire armoured, PVC over-sheathed cables.

IEC 60502-1

Nominal Area of Conductor		Nominal Thickness of Insulation	Unarmoured			Armoured			
			Approx. Cable Diameter overall	Approximate Cable weight		Armour Wire Diameter	Approx. Cable Diameter overall	Approximate Cable weight	
				Copper	Aluminium			Copper	Aluminium
mm <sup>2</sup>		mm	mm	Kg / km		mm	mm	Kg / km	
T W O C O R E	^ 1.5	0.7	11.50	-	-	0.90	14.30	280	-
	^ 2.5	0.7	11.30	-	-	0.90	16.20	360	-
	* 4.5	0.7	12.00	-	-	0.90	17.00	460	-
	* 6.0	0.7	13.10	-	-	0.90	19.70	610	-
	* 10	0.7	15.00	-	-	1.25	21.50	870	-
	* 16	0.7	16.60	490	280	1.25	22.20	1110	900
	* 25	0.9	21.30	730	400	1.60	26.40	1470	1140
	# 35	0.9	21.70	960	500	1.60	25.30	1780	1320
	# 50	1.0	20.90	1120	510	1.60	26.10	1910	1300
	# 70	1.1	23.90	1550	670	1.60	29.50	2490	1610
	# 95	1.1	26.80	2100	870	2.00	33.60	3410	2180
	# 120	1.2	29.70	2630	1080	2.00	26.50	4050	2500
	# 150	1.4	33.10	3220	1320	2.00	39.70	4790	2890
	# 185	1.6	36.80	4010	1630	2.50	46.00	6190	3810
	# 240	1.7	41.30	5220	2090	2.50	50.50	7640	4510
	# 300	1.8	45.30	6480	2550	2.50	54.90	9200	5270
	# 400	2.0	51.00	8320	3260	2.50	60.60	11360	6300

\* Circular/Circular Compacted Stranded Conductors

# Shaped Stranded Conductors

^ Circular Solid Conductor





## Dimensions & Weights

Table 3

### XLPE Insulated Power Cables

600 / 1000 V Unarmoured and single wire armoured, PVC over-sheathed cables.

IEC 60502-1

Nominal Area of Conductor		Nominal Thickness of Insulation	Unarmoured			Armoured			
			Approx. Cable Diameter overall	Approximate Cable weight		Armour Wire Diameter	Approx. Cable Diameter overall	Approximate Cable weight	
				Copper	Aluminium			Copper	Aluminium
mm <sup>2</sup>		mm	mm	Kg / km		mm	mm	Kg / km	
THREE CORE	^ 1.5	0.7	11.10	140	-	0.90	15.90	380	-
	^ 2.5	0.7	11.80	150	-	0.90	16.00	440	-
	* 4.5	0.7	12.70	240	-	0.90	17.50	530	-
	* 6.0	0.7	13.90	320	-	0.90	18.80	630	-
	* 10	0.7	15.90	460	-	1.25	21.20	940	-
	* 16	0.7	17.60	650	340	1.25	23.20	1300	990
	* 25	0.9	21.30	960	280	1.60	26.50	1720	1240
	# 35	0.9	21.40	1210	550	1.60	28.30	2000	1340
	# 50	1.0	23.30	1590	690	1.60	30.50	2450	1550
	# 70	1.1	26.80	2240	940	1.60	34.50	3250	1950
	# 95	1.1	30.50	2910	1090	2.00	39.40	462	2800
	# 120	1.2	33.90	3790	1470	2.00	42.60	6180	3860
	# 150	1.4	38.00	4680	1840	2.00	48.00	7100	4260
	# 185	1.6	42.50	5880	2360	2.50	52.40	8780	5220
	# 240	1.7	47.10	7600	2920	2.50	57.20	10680	6000
	# 300	1.8	52.50	9710	3950	2.50	62.30	11920	6160
	# 400	2.0	58.40	12390	4790	2.50	69.70	15940	8340

\* Circular/Circular Compacted Stranded Conductors

# Shaped Stranded Conductors

^ Circular Solid Conductor



## Dimensions & Weights

**Table 4**

### XLPE Insulated Power Cables

600 / 1000 V Unarmoured and single wire armoured, PVC over-sheathed cables.

IEC 60502-1

Nominal Area of Conductor		Nominal Thickness of Insulation	Unarmoured			Armoured			
			Approx. Cable Diameter overall	Approximate Cable weight		Armour Wire Diameter	Approx. Cable Diameter overall	Approximate Cable weight	
				Copper	Aluminium			Copper	Aluminium
mm <sup>2</sup>		mm	mm	Kg / km		mm	mm	Kg / km	
FOUR CORE	^ 1.5	0.7	12.00	170	-	0.90	16.90	420	-
	^ 2.5	0.7	12.90	220	-	0.90	17.80	500	-
	* 4.5	0.7	13.70	300	-	0.90	17.60	600	-
	* 6.0	0.7	15.10	390	-	1.25	20.00	840	-
	* 10	0.7	16.90	590	-	1.25	22.20	1200	-
	* 16	0.7	19.50	860	430	1.60	24.60	1650	1220
	* 25	0.9	22.90	1200	560	1.60	28.10	2460	1820
	# 35	0.9	23.80	1660	770	1.60	30.80	2540	1900
	# 50	1.0	27.10	2180	960	1.60	32.70	3100	2000
	# 70	1.1	33.10	3040	1330	2.00	41.00	4900	3190
	# 95	1.1	34.50	4160	1720	2.00	43.50	6390	3950
	# 120	1.2	38.50	5040	2150	2.50	49.00	7520	4630
	# 150	1.4	42.60	6420	2620	2.50	53.30	8600	4800
	# 185	1.6	47.40	8030	3280	2.50	58.50	10430	5680
	# 240	1.7	53.70	10430	4180	2.50	63.90	13120	6870
	# 300	1.8	59.00	13010	5150	2.50	69.50	16370	8510
	# 400	2.0	66.70	16650	6520	3.15	78.70	21660	11530

\* Circular/Circular Compacted Stranded Conductors

# Shaped Stranded Conductors

^ Circular Solid Conductor



## Dimensions & Weights

Table 5

### XLPE Insulated Power Cables

600 / 1000 V Unarmoured and single wire armoured, PVC over-sheathed cables.

IEC 60502-1

Nominal Area of Conductor		Nominal Area of Neutral Conductor	Nominal Thickness of Insulation		Unarmoured			Armoured			
					Approx. Cable Diameter overall	Approximate Cable weight		Armour Wire Diameter	Approx. Cable Diameter overall	Approximate Cable weight	
			Phase	Neutral		Copper	Aluminium			Copper	Aluminium
mm²		mm²	mm	mm	Kg / km		mm	mm	Kg / km		
FOUR CORE WITH REDUCED NEUTRAL CONDUCTOR	*25	* 16	0.9	0.7	23.70	1120	550	1.60	29.50	1310	
	# 3	* 16	0.9	0.7	24.10	1440	680	1.60	30.50	1520	
	# 50	* 25	1.0	0.9	27.10	1890	830	1.60	33.70	1900	
	# 70	* 35	1.1	0.9	31.70	2640	1110	2.00	39.50	2800	
	# 95	* 50	1.1	1.0	35.80	3970	1870	2.00	43.70	3850	
	# 120	* 70	1.2	1.1	39.90	4570	2010	2.50	48.60	4180	
	# 150	* 70	1.4	1.1	44.40	5470	2240	2.50	53.00	440	
	# 185	* 95	1.6	1.1	49.40	6890	2770	2.50	58.00	5530	
	# 240	* 120	1.7	1.2	55.80	9330	3990	2.50	64.50	6030	
	# 300	* 150	1.8	1.4	61.70	12540	4650	2.50	69.80	8130	
# 400	* 185	2.0	1.6	68.80	14580	5830	2.50	79.30	10950		

\* Circular/Circular Compacted Stranded Conductors

# Shaped Stranded Conductors



## Allied Manufacturing Products

### **Products List**

- A** Copper Rod
- B** Enameled Copper Wire
- C** Copper Strips all Types
- D** Master Diesel Engine
- E** Electric Wire & Cable in Complete Range which includes
  - 1** Hard Drawn or Annealed Plain Copper solid / stranded conductors.
  - 2** All Aluminum conductors AAC.
  - 3** Aluminum conductor Steel Reinforced.
  - 4** General Wiring Cable for Household, Buildings. Industrial Use.
  - 5** Power Cables Armoured/Unarmoured with copper/Aluminium conductors.
  - 6** Power Cables LT XLPE Insulated Cables Armoured/Unarmoured.
  - 7** Airport lighting Cables.
  - 8** Welding Cables PVC Insulated.
  - 9** Control Cables
  - 10** Flexible Cables
  - 11** Automobile cables

**Note :** Generally manufactured to IEC Specification but can also be manufactured to client requirement or any other international specification. All Products are tested to British Standards, Client requirement or any other international standard. Strict technical Control is maintained throughout manufacture to ensure high level of quality.





# Quality Products Chain of **Allied Group**



## **Allied Cables**

Guaranteed High Conductivity 99.99% Pure Copper  
House / General Wiring Cables, Special Cables, Control Cables  
Flexible Cable, Power cables, Overhead Copper Conductors  
Overhead Aluminium Conductor



## **ALLIED COPPER ROD**

99.99% Pure Copper Rod  
(The Largest Manufacturers of Copper Rod in Pakistan)



## **MOON STAR®**

99.99% PURE ENAMELLED COPPER WIRE

The Largest Manufacturers of Enamelled Copper Wire in Pakistan



T.M. No. 87692



## **Allied Copper Strip**

**Paper Insulated Copper Strip**

The Largest Manufacturers of All Type Copper Strip in Pakistan



T.M. No. 122245

## **Master Diesel Engine**

**Karachi**



### ■ HEAD OFFICE

4/1, Arkay Square, Shahrah-e-Liaquat,  
P.O.Box No. 4310, Karachi-74000.  
UAN: 021-111-236-547  
Fax: +92-21-32420791-32400421  
E-mail: alliedgroup2000@yahoo.com

### ■ KARACHI STOCK OFFICE

Riaz Mansion, Shahrah-e-Liaquat /  
Aiwan-e-Tijarat Road Corner,  
P.O. Box 4310, Karachi.  
Tel: +92-21-32428851-32427371  
Fax: +92-21-32420791

### ■ LAHORE OFFICE

Allied Industries Hub (Pvt) Ltd.  
6 Nishtar Road, Lahore.  
UAN: 042-111-236-547,  
Fax: +92-42-37639938

### ■ GUJRANWALA OFFICE

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