

# WELDING CABLES



- ▶ **XXL Range**  
Extra Large Sizes for Most Demanding Continuous Welding Applications Like tower Welding
- ▶ **Versatile Range**  
General Purpose Highly Flexible Welding Cables which are fast moving in the market and most commonly used
- ▶ **Vertical Welding Range**  
For high altitude vertical welding applications
- ▶ Exact Wire Gauge High Grade Conductor  
Superior Insulation Highly Flexible Fire Resistance

**Available As Per**

- Indian Standard IS:9857
- European Standard (EN50525)
- British Standard (BS638)
- American Standard (UL)

**Sold Approx.**  
**61 Lakh km.**  
**Welding Cables worth**  
**Rs. 98 Crore**



# Cable Solutions For **WELDING CABLES**



## FEW PRESTIGIOUS *Customers*

 <b>सेल SAIL</b> Steel Authority of India	 <b>बी एच ई एल</b> <b>BHEL</b> Bharat Heavy Electricals Ltd.	 <b>Reliance</b> Industries Limited Reliance Industries Ltd.	 Chennai Port Trust Chennai Port Trust	 <b>बी ई एम एल</b> <b>beml</b> NEW FRONTIERS. NEW DREAMS BEML Limited
 A P S R Transport Corporation	 <b>ador</b> <b>FONTTECH</b> Ador Fontech Ltd.	 <b>COLTON</b> MASTERING THE ARC Colton Weldtek Pvt. Ltd.	 G S R Transport Corporation	 <b>FINEARC</b> <b>SYSTEMS</b> Fine Arc Systems Pvt. Ltd.
 Maharashtra State Rd. Tpt. Corp.	 <b>MAN</b> Industries (India) Ltd the line pipe people Man Industries India Limited	 <b>WONDER</b> <b>CEMENT</b> EK PERFECT SHURUAAT Wonder Cement Ltd.	 <b>MOGORA</b> Mogora Cosmic Pvt. Ltd.	 <b>adani</b> Ports and Logistics Adani Ports & Special Eco. Zone Ltd.
 Tamilnadu State Rd. Tpt. Corp.	 <b>WIM</b> Wim India Pvt. Ltd.	 Material Organisation (Indian Navy)	 <b>ESSAR</b> Essar Constructions Essar Construction (I) Ltd.	 <b>JINDAL</b> <b>STEEL &amp; POWER</b> Jindal Steel
 <b>MCL</b> Mahanadi Coalfield Ltd.	 <b>JSL</b> JINDAL STAINLESS Jindal Stainless Hisar Ltd.	 <b>HIRA</b> GROWING STRONGER TOGETHER Godavari Power	 <b>मॉयल</b> <b>MOIL</b> MOIL Limited	 <b>beml</b> NEW FRONTIERS. NEW DREAMS Bharat Earth Movers Ltd.
 <b>एन एम डी सी</b> <b>NMDC</b> NMDC LTD.	 <b>ज ने प न्यास</b> <b>JNPT</b> Jawaharlal Nehru Port Trust	 <b>SCLL</b> Singareni Collieries Company Ltd.	 <b>GNFC</b> Gujarat Narmada Valley Fertilizers Co. Ltd.	 <b>IT</b> Alpha Cranes
 <b>JKcement</b> J K Cement	 <b>ACCESS WELD</b> TECHNOLOGIES PVT. LTD. The Scientific Path Of Welding Technology Access Weld Technologies (P) Ltd.	 <b>fabtech</b> febtech Works & Constructions	 <b>REAL</b> ISPAT & POWER LTD Real Ispat Limited	
 <b>INOXWIND</b> Energizing INDIA Inox Wind Ltd.	 <b>Mehta</b> Sanghvi & Company Mehta Sanghvi & Company	 <b>LARSEN &amp; TOUBRO</b> It's all about Imagineering Larsen & Toubro Ltd.	 <b>AM/NS</b> <b>INDIA</b> Arcelor Mittal Nippon Steel India Ltd	



**NANGAL**  
Switching on Lives



## Registrations



Product Design Assessment  
by American Bureau of Shipping  
Power, Lighting & Control Wiring  
for Shipboard and offshore & Marine Installations of type M2X and M2XCH



Ministry of Defence (DGQA) Naval  
For Single Core & Multi Core Cables

Cert.No DQAN/REGN/15/19



Research, Designs & Standards Organization  
(Ministry of Railway)  
Approval for Single & Multi Core Elastomeric Cables



Electric Cable for Photovoltaic System  
(Solar Cable) IEC 60228:2004 Table 3,  
EN 50618:2014

Cert. No. R60117697  
EN 50618:2014



Certificate of Compliance



Quality Management System Standard  
ISO 9001:2015

Cert.No. 62372-2009-AQ-IND-NABCB



Recognition of in-House R&D Unit  
by  
Department of Scientific and Industrial Research



Mecon Limited  
for Flexible Cable (IS 9968 Part 1 & 2 upto  
3.3kV and IS 14494)

F.No. TU/IV-RD/3128/2019



Govt. Purchase Enlistment Certificate  
by  
The National Small Industries Corporation Ltd.

LCISO Certification  
Defence Research and Development Organisation  
(Ministry of Defence)  
For Wires, Electrical, High Temperature, PTFE/ FEP  
Insulated Cables (JSS 51034)

Cert. No. 4824



## Product Approvals

IS : 9968-1



CM/L-8651081

Elastomer  
Insulated Cables

IS : 9968-2



CM/L-8835701

Elastomer Insulated  
Cables

IS : 7098-1



CM/L-3113533

Crosslinked Polyethylene (XLPE)  
Insulated Thermoplastic  
Sheathed Cables

IS : 1554-1



CM/L-3113634

PVC Insulated (Heavy Duty)  
Electric Cables

IS : 694



CM/L-3113432

PVC Insulated Cables/Cords  
with Rigid &  
Flexible Conductor

IS : 14494



CM/L-8660789

Elastomer Insulated  
Flexible Cables  
for Use in Mines

IS : 9857



CM/L-8631378

Welding Cables

IS : 2465



CM/L-8400127710

Cables for Motor Vehicles



## Copper HOFR



- Excellent Fuel and Oil Resistance
- Good Sub-Zero Temperature Performance
- Cross Linked HOFR Insulation
- Long Service Life
- Welding Splatter Resistant
- Heavy Outdoor Applications
- High Flexible

Size (sq. mm)	16	25	35	50	70	95	120 Non ISI
Dia Of Wire (Max)	0.2	0.2	0.2	0.3	0.3	0.3	0.3
No. of Wire	509	796	1114	707	990	1344	1698
OD (Approx)	9.8	11	12.2	14.7	16.9	19.3	21.5
CR	1.21	0.78	0.554	0.386	0.272	0.206	0.161



## Aluminium HOFR

- Excellent Fuel and Oil Resistance
- Good Sub-Zero Temperature Performance
- High Flexible
- Long Service Life
- Welding Splatter Resistant
- Heavy Outdoor Applications
- Economical Compared to Copper Version
- Cross Linked HOFR Insulation

Size (sq. mm)	35	50	70	95	120
Dia Of Wire (Max)	0.3	0.3	0.3	0.3	0.3
No. of Wire	495	707	990	1344	1698
OD (Approx)	13	15.2	17.4	19.9	22.1
CR	0.918	0.639	0.45	0.342	0.266



Actual Product Images



## Aluminium TRS



- Good Sub-Zero Temperature Performance
- Used as Cable to Welding Holder
- Tough Rubber Sheath
- Long Service Life
- Welding Splatter Resistant
- Heavy Outdoor Applications
- Economical compared to copper version
- Also used as Earthing Leads
- Flexible

Size (sq. mm)	35	50	70	95	120
Dia Of Wire (Max)	0.3	0.3	0.3	0.3	0.3
No. of Wire	495	707	990	1344	1698
OD (Approx)	13	15.2	17.4	19.9	22.1
CR	0.901	0.634	0.445	0.334	0.256



Also Available in Special Sealed Plastic Circular Container Drums



95 / 120 mm  
50 mtr. Coil

Packed in



Jute Bag

100 mtr. Coil

## Copper TPR HOFR

- Excellent Fuel and Oil Resistance ■ Good Sub-Zero Temperature Performance
- Long Service Life ■ Mild Welding Splatter Resistant ■ Heavy Outdoor Applications ■ High Flexible
- Smooth Finish ■ Orange/ Black Color ■ Non Cross Linked HOFR Insulation

**Single Insulated**

Size sq. mm	16	25	35	50	70	95	120
Dia Of Wire (Max)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
No. of Wire	509	798	1114	1592	2229	3025	3821
OD (Approx)	9.8	11	12.2	14.7	16.9	19.3	21.5
CR	1.21	0.78	0.554	0.386	0.272	0.206	0.161



**Double Insulated**

Size	16	25	35	50	70	95	120
Dia Of Wire (Max)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
No. of Wire	509	798	1114	1592	2229	3025	3821
OD (Approx)	10.6	12	13.2	15.3	17.4	19.9	21.9
CR	1.21	0.78	0.554	0.386	0.272	0.206	0.161

## Aluminium TPR HOFR

- Excellent Fuel and Oil Resistance ■ Good Sub-Zero Temperature Performance ■ For up to 100V ■ Smooth Finish
- Flexible Welding Splatter Resistant ■ Economical Compared to Copper Version ■ For up to 60°C
- Long Service Life ■ Heavy Outdoor Applications ■ Orange/ Black Color ■ Non Cross Linked HOFR Insulation

**Single Insulated**

Size sq.mm	35	50	70	95	120
Dia Of Wire (Max)	0.3	0.3	0.3	0.3	0.3
No. of Wire	495	707	990	1344	1698
OD (Approx)	13	15.2	17.4	19.9	22.1
CR	0.918	0.639	0.45	0.342	0.266



**Double Insulated**

Size sq.mm	35	50	70	95	120
Dia Of Wire (Max)	0.3	0.3	0.3	0.3	0.3
No. of Wire	495	707	990	1344	1698
OD (Approx)	13.6	15.8	18	20.5	22.7
CR	0.918	0.639	0.45	0.342	0.266

**Packed in**



Actual Product Images



## AS PER INTERNATIONAL SPECS

### H01N2D

- As per BSi EN 50525-2-81 ■ Cross-Linked HOFR Insulation ■ Heavy Duty Welding Cycles.
- Sustain Welding Spatter and Contact with Hot Surface ■ High Flexible Copper Conductor

Size sq mm	10	16	25	35	50	70	95	120	150	185	240
Dia Of Wire (Max)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
No. of Wire	318	509	798	1114	1592	2229	3025	1698	2123	2618	3397
OD (Approx)	8.9	10	11.3	12.6	14.6	16.9	19.4	16.3	17.9	19.7	21.8
CR	1.91	1.21	0.78	0.554	0.386	0.272	0.206	0.161	0.129	0.106	0.0801



### H01N2E

- As per BSi EN 50525-2-81 ■ Cross-Linked HOFR Insulation ■ Good for Difficult Areas
- Sustain Welding Spatter and Contact with Hot Surface ■ Super Flexible Copper Conductor

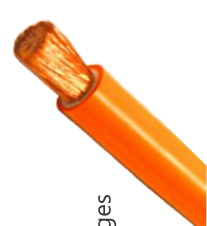
Size	10	16	25	35	50	70	95	120	150	185	240
Dia Of Wire (Max)	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.2	0.2	0.2	0.2
No. of Wire	497	796	1244	1741	2488	3483	4727	3821	4777	5891	7643
OD (Approx)	7.43	8.6	10.2	11.62	14.02	15.89	19.15	19.98	21.82	23.75	26.84
CR	1.91	1.21	0.78	0.554	0.386	0.272	0.206	0.161	0.129	0.106	0.0801



### 0361TQ

- As per BSi 0361TQ ■ Cross-Linked EPR Insulation ■ Cross-Linked HOFR Sheath
- Very Heavy Continuous Welding Sustain ■ Welding Spatter and Contact with Hot Surface
- For Very Rough & Non Friendly Environment ■ Double Insulated ■ Moderately Flexible Copper Conductor

Size (sq.mm)	10	16	25	35	50	70	95	120	150	185
Dia Of Wire (Max)	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.51	0.51	0.51
No. of Wire										
OD (Approx)	10.0	11.5	13.0	14.5	17.0	19.0	21.5	24.0	26.0	29.0
CR	1.91	1.21	0.780	0.554	0.386	0.272	0.206	0.161	0.129	0.106



Actual Product Images

#### Packed in



## Duty Cycle Chart

Welding Cable (Copper / Aluminium Conductor)  
General Purpose / HOFR Rubber Compound Conferred to IS : 9857

### COPPER

Nominal Cross Section Area of Conductor	Number / Nom. Dia of Wires	Thickness of Insulation (Nominal)	Current Rating (AMP) At Following Duty Cycle					
			General Purpose Compound			HOFR Compound		
Mm <sup>2</sup>	Mm	Mm	100%	60%	30%	100%	60%	Mm
16	510/0.2	2.0	94	121	172	135	174	246
25	796/0.2	2.0	125	161	228	177	228	343
35	1114/0.2	2.0	156	201	285	221	285	403
50	707/0.3	2.2	197	254	360	279	360	509
70	990/0.3	2.4	248	320	453	352	454	643
95	1344/0.3	2.6	299	386	546	424	547	774

### ALUMINIUM

Nominal Cross Section Area of Conductor	Number / Nom. Dia of Wires	Thickness of Insulation (Nominal)	Current Rating (AMP) At Following Duty Cycle					
			General Purpose Compound			HOFR Compound		
Sq.mm	Mm	Mm	100%	60%	30%	100%	60%	Mm
25	355/0.3	2.0	100	129	183	144	186	263
35	495/0.3	2.0	123	159	225	176	227	321
50	707/0.3	2.2	155	200	283	222	287	405
70	990/0.3	2.4	196	253	268	280	261	511
95	1344/0.3	2.6	237	306	433	339	438	619
120	1697/0.3	2.8	283	365	517	404	522	738

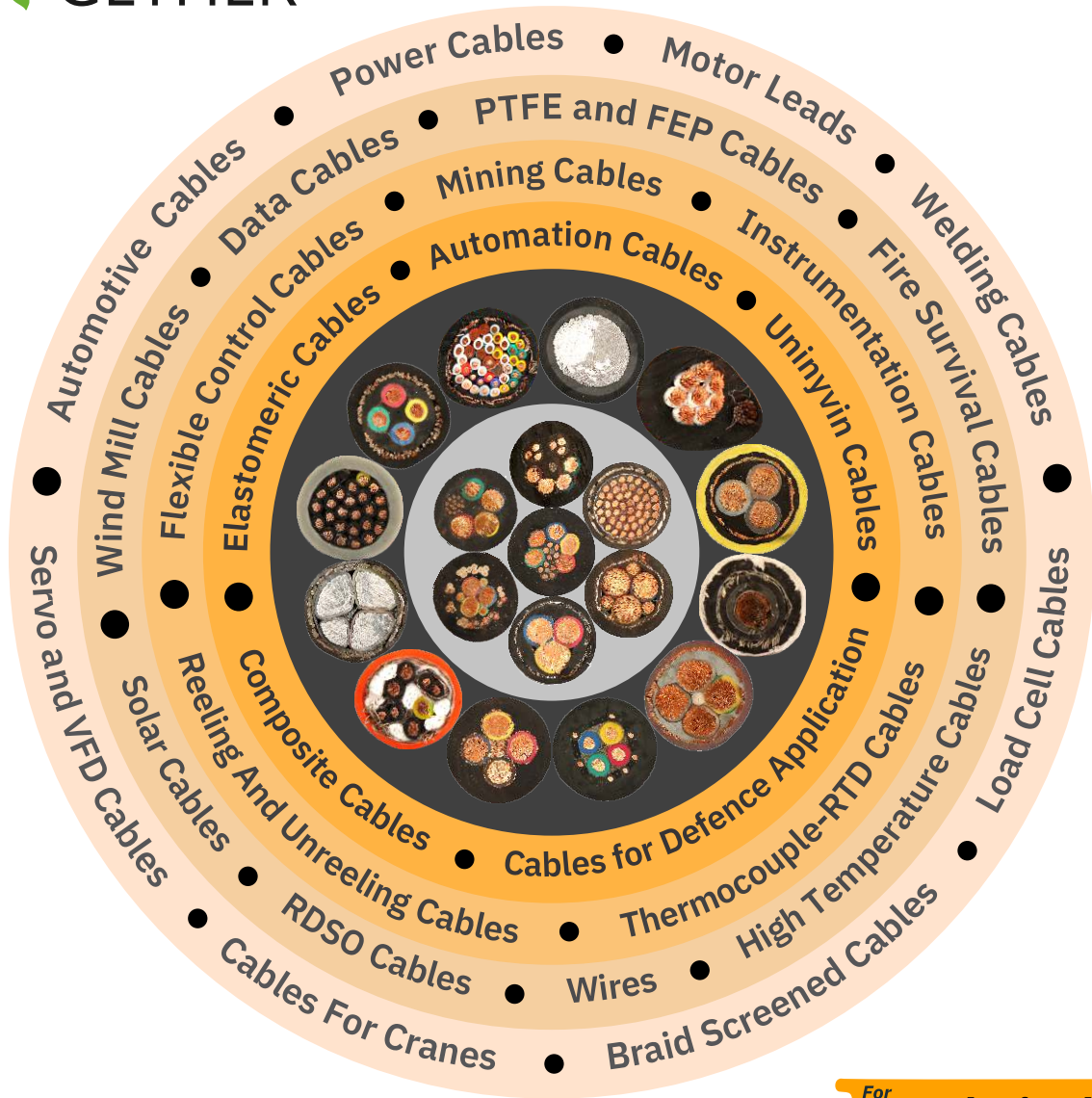
### Recommended Cable Size for Welding Electrodes

Working Temperature - TRS 60° C, HOFR 90° C

Electrode Size		Equivalent CABLE As per IS : 434	MANUAL WELDING			
			COPPER		ALUMINIUM	
SWG	Mm		HOFR sq.mm	TRS sq.mm	HOFR sq.mm	TRS sq.mm
10	3.15	150 A	16	25	25	35
8	4.00	230 A	25	35	35	50
8*	4.00*	400 A*	35	50	50	70
6	5.00	600 A	50	70	70	95
4	6.00	800 A	70	95	95	120
2	7.00	1000 A	95	120	120	---



# Evolving TOGETHER



For **Technical Assistance**  
Contact **9636498001**



**NANGAL**  
Switching on Lives

**NANGALWALA INDUSTRIES PVT. LTD.**

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