



# PARAMOUNT

WIRES & CABLES

## SOLAR CABLES



### E-BEAM IRRADIATED

improves thermal, mechanical and chemical properties of the polymer



### TÜV CERTIFIED

Designed to meet international safety requirements and quality standards



### LONG LIFE EXPECTANCY

Lasts up to 30 years even under tough external conditions.



### MECHANICAL RESISTANCE

Resistant to Impact, tear & abrasion



### PURE ANNEALED COPPER

99.97 % pure bright electrolyte grade copper



पैरामाउंट

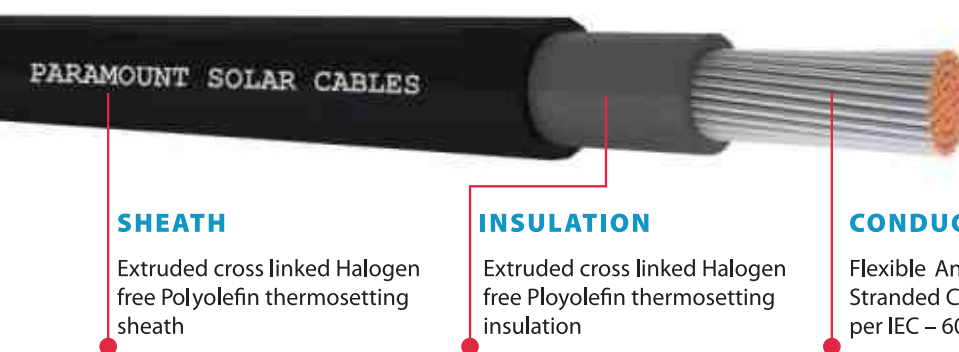
[www.paramountcables.com](http://www.paramountcables.com)



Due to rapid depletion of conventional fossil fuels, global focus today has shifted on the development and harnessing of renewable sources of energy. India has more than 300 sunny days in a year, which makes harnessing solar energy through photovoltaic (PV) system the most preferred green energy option here. In a PV system, the choice of solar cables is critical as a substandard cables can result in low efficiency and overheating that can in turn lead to cause of fire in extreme cases.

Paramount now offers TÜV certified electron-beam cross-linked solar cables. E-Beam irradiation is a process in which the polymer is exposed to an highly charged stream of electrons that creates cross-linking between the molecules. This cross-linking significantly improves thermal, mechanical and chemical properties of the polymer (i.e. insulation and sheathing materials.)

## CONSTRUCTION



### SHEATH

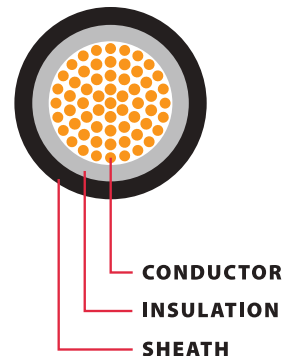
Extruded cross linked Halogen free Polyolefin thermosetting sheath

### INSULATION

Extruded cross linked Halogen free Polyolefin thermosetting insulation

### CONDUCTOR

Flexible Annealed Tinned Copper Stranded Class 5 conductor as per IEC – 60228



**CONDUCTOR**  
**INSULATION**  
**SHEATH**

## TECHNICAL SPECIFICATIONS

Voltage Rating	U/U = 600/1000 V AC, 1000/1800 V DC
Test Voltage	6.5 KV 50 Hz or 15 KV DC for 5 min
Temperature Rating	40°C up to +120°C
Ambient Temperature	-40°C up to +90°C
Bending Radius	>4×Ø (Cable OD)
Oil & Chemical resistance	IEC 60811-1
Max. Short circuit Temp	250°C(for 5 sec)





## FEATURES

E beam irradiated XLPO has following enhanced features over high temperature cross-linking:

1

UV and ozone resistant, improved weather resistance to work in difficult weather conditions.

2

Enhanced oil and chemical resistance, crack resistance.

3

Long-lasting cables Last 30 years, even under tough external conditions.

4

Conductor works in temperature minimum -40°C to max 120°C.

5

Halogen Free, improved flammability properties.

SIZE	CONDUCTOR	INSULATION THICKNESS	SHEATH THICKNESS	CABLE OD	WEIGHT OF CABLE	CURRENT RATING (A)			MAX. DC RESISTANCE OF CONDUCTOR AT 20°C (OHM/ KM)
sq.mm	No./ Dia of strand(mm) (nom.)	mm (minimum)	mm (mininum)	mm (Nominal)	Kg/ Km (Approx)	At 60°C in Air	Single Cables on Surface	2 Cables Adjacent on Surfaces	
2.5	50/0.25	0.5	0.5	4.2	35	41	39	33	8.21
4	56/0.3	0.5	0.5	4.7	50	55	52	44	5.09
6	84/0.3	0.5	0.5	5.5	70	70	67	57	3.39
10	80/0.4	0.5	0.5	6.5	110	98	93	79	1.95
16	126/0.4	0.5	0.5	8.3	170	132	125	107	1.24
25	196/0.4	0.5	0.5	11	285	176	167	142	0.795
35	276/0.4	0.5	0.5	12	385	218	207	176	0.565
50	396/0.4	0.8	1.0	14	535	276	262	221	0.393
70	360/0.5	0.9	1.0	16	735	347	330	278	0.277
95	475/0.5	0.9	1.1	18	945	416	395	333	0.21





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### TEST & RATING

#### SEVERE WEATHER RESISTANCE



Max. Conductor Temperature 120°C  
IEC 60216



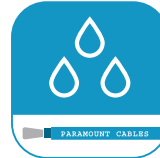
Resistance To Extreme Temperatures  
-40°C IEC 60811-1-4



Resistance To UV Rays (UV)  
UL 1581



Resistance To Ozone  
IEC 60811-2-1



Resistance To Water Absorption  
IEC 60811-1-3

#### LIFE EXPECTANCY



Design Life Time 30 Years  
IEC 60216

#### MECHANICAL RESISTANCE



Impact Resistance  
IEC 60811-1-4



Abrasion Resistance  
EN 50305



Tear Resistance  
IEC 61034-2

#### SAFE FOR ENVIRONMENT



Environment Friendly



Halogen Free  
IEC 60754 - 1



Low Corrosive Gas Emission  
IEC 60754 - 2



Low Smoke Opacity  
IEC EN 61034- 2



Non Fire Propagation  
IEC 60332 - 3

### TUV CERTIFIED



## PARAMOUNT COMMUNICATIONS LIMITED

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