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PRODUCT CATALOGUE 2022

# Uninyvin Cables

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

# Uninyvin Cables

Uninyvin Cables were primarily used in Aircraft Industry for general purpose electrical cables. Owing to the stringent design as per BS G-177 standard and its inherent electrical & insulation properties, Uninyvin Cable found its application in many other Industries. Zenium cables limited is specialized in making uninyvin cable and it has complete in-house state of the art manufacturing and testing facilities to comply the most stringent specifications of the cable.

Zenium Uninyvin Cable has become synonymous with Wiring in the UPS / Inverter Industry and is a preferred choice in Battery Inter-Link, Control Panels, Electric Motors, Transformers, Solar Power Equipment, HVAC and Diesel Generator Sets. The Uninyvin Cable will grab the attention of other industries as well, as we believe its Application is far & wide and yet to be discovered.

Uninyvin type cables have superior properties compared to PVC cables. The current carrying capacity of the Uninyvin Cable is also greater than PVC Cable, for a given size, making Uninyvin cost effective.

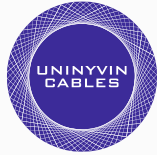
Uninyvin Cables						
Sr.no	Uninyvin Cable	Size(area)	Conductor Diameter (Max)	Overall Diameter (Max)	Conductor Resistance at 20°C Max	Max Current Rating (Amps)
		sq/mm	mm	mm	Ohm/900m	BS-G-177
1	22	0.347	0.838	2.00	49.660	11
2	20	0.566	1.04	2.30	30.950	14
3	18	0.966	1.32	2.50	17.820	18
4	16	1.17	1.55	2.80	14.700	21
5	14	2.05	1.95	3.40	8.410	31
6	12	3.22	2.43	3.80	5.350	43
7	10	5.33	3.15	5.00	3.230	61
8	8	8.76	4.24	6.30	1.970	87
9	6	13.3	5.54	7.50	1.300	115
10	4	21.5	6.90	9.30	0.802	160
11	2	33.3	8.76	11.00	0.517	200
12	1	40.7	9.75	12.20	0.423	220
13	0	53.0	11.0	13.70	0.325	240
14	00	68.3	12.4	15.40	0.252	270
15	000	84.2	13.9	16.90	0.204	300
16	0000	109	15.6	18.70	0.158	350

UNINYVIN CABLES

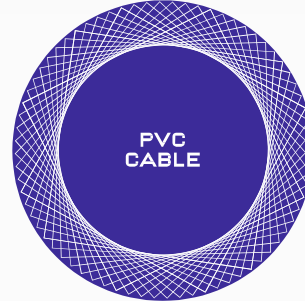


# Comparison between Uninyvin & PVC Cables

Uninyvin Cables have a superior current carrying capacity than regular PVC Cables. The circles below represent the required cross-sectional area for PVC and Uninyvin Cable to carry the same amount of current. Copper forms the largest component of cost in the manufacturing of cables; Uninyvin Cables need a lower amount of copper to conduct the same amount of current and they are much more economical than PVC Cables. Below is the comparison chart between PVC and Uninyvin :



Size Ratio 1:3



Comparison Chart - Normal PVC Cables VS Uninyvin Cables

PVC Cables			Uninyvin Cables		
Size mm <sup>2</sup>	Cable Diameter mm	Current Rating amp	Size AWG	Cable Diameter mm	Current Rating amp
2.50	3.50	20	18	2.50	23
4.00	4.30	27	16	2.80	27
6.00	5.30	35	14	3.40	40
10.00	6.70	46	12	3.80	55
16.00	8.20	62	10	5.00	78
25.00	10.00	80	8	6.30	111
35.00	11.30	102	6	7.50	148
50.00	13.50	138	4	9.30	205
70.00	15.50	214	2	11.00	256
95.00	18.50	260	1	12.20	282

## De-rating factors of Uninyvin cables for different ambient

Ambient Temp.	40	45	50	55	60	65	70	75	80	85	90	95	100
De rating factor	1.0	0.96	0.92	0.88	0.83	0.78	0.75	0.73	0.68	0.62	0.53	0.48	0.30

## Benefits

**Tinned copper** - The cable does not oxidize and is compatible to solder.

**HR-PVC** - The Cable can withstand a maximum temperature of 105°C.

**Fibre Glass Braiding** - Fibre glass is a bad conductor of fire, therefore ensuring fire-retardancy during fires. It also gives high mechanical strength of cable.

**Nylon Braiding and Lacquering** - Nylon adds to the thermal stability of the cable. The process of lacquering improves the mechanical strength of the cable and also makes the cable oil, water and abrasion resistant