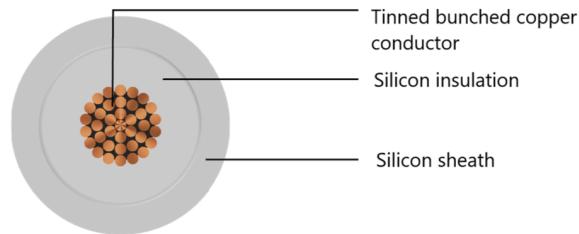


POLYCARB SiR-S, IS 9968-1 Rubber power and control Cable, 1100 V

POLYCARB
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

APPLICATION

POLYCARB SiR-S, silicon rubber insulated and silicon rubber sheathed Cable generally confirming to IS 9968-1 is designed to use in flexible wiring, single phase or three phase (earthed or unearthing) system for rated voltage up to and including 1100 V. These cables may be used on DC system for rated voltage grade 1500 V to earth. These cables are suitable to use in high temperature area especially in furnace and windmill generator.

CHARACTERISTICS

Voltage Rating

1100 V

Operation Temperature

Fixed: -50°C to 180°C

Maximum short circuit temperature 350°C

Bending Radii

Fixed installation >12 x Overall Diameter

Occasional >10 x Overall Diameter

CONSTRUCTION

- Annealed tinned bunched electrolytic grade copper conductor to IS 8130, class 5
- Insulated by silicon rubber compound to IS 6380
- Sheathed with silicone rubber compound SE5 to IS 6380

Core Identification

White/Red/Yellow/Blue/Black

Test Voltage

3000 V AC

STANDARD FOLLOWS

IS 8130:2013

IS 6380:1984*

IS 9968:1988

COMPLIANCE

Conductor resistance test IS 8130

Insulation resistance IS 6380:1984*

Flammability IEC 60332-1-2

OUR ACCREDITATIONS



POLYCARB SiR-S, IS 9968-1
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WEIGHT AND DIMENSION DATA :

| No. of core | Nominal cross sectional area | Insulation thickness | Overall diameter | Weight (Approx.) |
|-------------|------------------------------|----------------------|------------------|------------------|
| | mm ² | mm | mm | kg/km |
| 1 | 0.5 | 1 | 4.9 | 28 |
| 1 | 0.75 | 1 | 5.1 | 32 |
| 1 | 1 | 1 | 5.3 | 36 |
| 1 | 1.5 | 1 | 5.6 | 42 |
| 1 | 2.5 | 1 | 6.0 | 55 |
| 1 | 4 | 1 | 6.6 | 73 |
| 1 | 6 | 1 | 7.1 | 96 |
| 1 | 10 | 1.2 | 8.7 | 151 |
| 1 | 16 | 1.2 | 9.7 | 213 |
| 1 | 25 | 1.4 | 11.6 | 318 |
| 1 | 35 | 1.4 | 12.8 | 422 |
| 1 | 50 | 1.6 | 14.9 | 592 |
| 1 | 70 | 1.6 | 16.8 | 801 |
| 1 | 95 | 1.8 | 18.9 | 1066 |
| 1 | 120 | 1.8 | 20.7 | 1319 |
| 1 | 150 | 2 | 22.8 | 1615 |

Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

| Nominal cross sectional area mm ² | Current rating in air Amp. | | | | | | Maximum DC conductor resistance 20°C Ω/km |
|---|-------------------------------|------|------|-------|-------|-------|--|
| | 30°C | 60°C | 90°C | 120°C | 150°C | 170°C | |
| 0.5 | 23 | 20 | 17 | 13 | 9 | 5 | 40.1 |
| 0.75 | 30 | 26 | 22 | 17 | 11 | 6 | 26.7 |
| 1 | 35 | 31 | 26 | 20 | 13 | 7 | 20 |
| 1.5 | 44 | 38 | 52 | 25 | 17 | 8 | 13.7 |
| 2.5 | 61 | 53 | 45 | 35 | 23 | 12 | 8.21 |
| 4 | 82 | 71 | 60 | 47 | 31 | 16 | 5.09 |
| 6 | 104 | 91 | 77 | 60 | 39 | 20 | 3.39 |
| 10 | 148 | 129 | 108 | 85 | 56 | 28 | 1.95 |

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| Nominal cross sectional area mm² | Current rating in air Amp. | | | | | | Maximum DC conductor resistance 20°C Ω/km |
|--|--------------------------------------|-------------|-------------|--------------|--------------|--------------|--|
| | 30°C | 60°C | 90°C | 120°C | 150°C | 170°C | |
| 16 | 197 | 173 | 145 | 114 | 75 | 58 | 1.24 |
| 25 | 263 | 230 | 193 | 151 | 99 | 51 | 0.795 |
| 35 | 327 | 286 | 240 | 188 | 124 | 63 | 0.565 |
| 50 | 413 | 362 | 304 | 238 | 157 | 80 | 0.393 |
| 70 | 531 | 465 | 391 | 306 | 201 | 103 | 0.277 |
| 95 | 623 | 545 | 458 | 359 | 236 | 121 | 0.21 |
| 120 | 738 | 645 | 543 | 425 | 280 | 143 | 0.164 |
| 150 | 850 | 744 | 626 | 491 | 323 | 166 | 0.132 |

Conductor maximum operating temperature 180°C

De-rating factor

De-rating factor for 180°C insulated cable

| Air Temperature | 150°C | 155°C | 160°C | 170°C | 180°C |
|------------------|-------|-------|-------|-------|-------|
| De-Rating Factor | 1 | 0.91 | 0.82 | 0.58 | 0.41 |