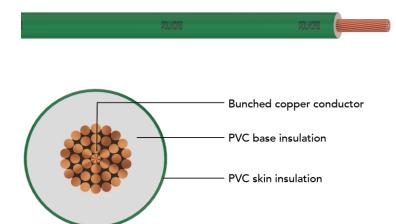


## POLYCAB HR-FR-LSH-GREEN WIRE

# **Building wire, 1100 V AC**



#### **Salient Features:**

- ✓ Higher current carrying capacity.
- ✓ High fire retardancy
- ✓ Low emission of toxic gases
- ✓ Low carbon emission, eco healthy
- ✓ Low volatile organic content less contamination
- ✓ High conductivity electrolytic copper conductor

# **Application**

POLYCAB HR-FR-LSH Green wire is highly eco-friendly & suitable for use in places where extra fire safety and heat resistance is required along with high flexibility. This is also suitable for indoor installation in industries, household appliances and building electrification.

### **Voltage Rating**

1100 V

#### **Operation Temperature**

Fixed: -15°C to 85°C

#### Construction

- Annealed stranded or bunched copper conductor as per IS 8130, class 2 or class 5
- Insulated by PVC Type C with FR-LSH to IS 5831

### **Core Identification**

Red/Yellow/Blue/Black/Green/any customise colour

# **Bending Radius**

Fixed installation >6 x Overall Diameter Occasional >4 x Overall Diameter

#### **Electrical Property**

- High insulation resistance
- Higher current carrying capacity
- Electrical energy saving

## **Mechanical & Physical Properties**

- High Flexibility
- Free from hazardous substances
- Resistant to Termite & Rodent
- Resistant to moisture for use in wet area
- Resistant heat deformation
- Improved life expectancy
- Resistant to Acid & Alkali

#### **Standard and References**

IS 8130:2013 IS 5831:1984 IS 694:2010

## Test Voltage

3000 V AC at (20±5) °C

## **Compliance**

Conductor resistance test IS 8130
Flammability IEC 60332-1
Oxygen index ASTM D 2863
Temperature index ASTM D 2863
Halogen acid gas generation IEC 60754-1
Smoke density ASTM D 2843-16
Flame resistance ASTM D 2863

#### **Approvals**



















# **POLYCAB HR-FR-LSH-GREEN WIRE**

# **Building wire, 1100 V AC**

| Product Code         | Nominal<br>cross<br>sectional<br>area<br>mm² | Class of conductor | No. of wire/wire dia. | Nominal insulation thickness mm | Overall dia.<br>(Approx.) |
|----------------------|--|--------------------|-----------------------|---------------------------------|---------------------------|
| LDIS09CYUAYL001C.75S | 0.75   | 5                  | 24/0.2                | 0.6                             | 2.32                      |
| LDIS09CYUAYL001C001S | 1  | 2                  | 14/0.3                | 0.7                             | 2.68                      |
| LDIS09CYUAYL001C001S | 1  | 5                  | 32/0.2                | 0.6                             | 2.49                      |
| LDIS09CYUAYL001C1.5S | 1.5  | 2                  | 22/0.30               | 0.7                             | 3.0                       |
| LDIS09CYUAYL001C1.5S | 1.5  | 5                  | 30/0.25               | 0.7                             | 2.96                      |
| LDIS09CYUAYL001C2.5S | 2.5  | 2                  | 36/0.30               | 0.8                             | 3.65                      |
| LDIS09CYUAYL001C2.5S | 2.5  | 5                  | 50/0.25               | 0.8                             | 3.62                      |
| LDIS09CYUAYL001C004S | 4  | 5                  | 56/0.3                | 0.8                             | 4.16                      |
| LDIS09CYUAYL001C006S | 6  | 5                  | 84/0.3                | 0.8                             | 4.73                      |
| LDIS09CYUAYL001C010S | 10   | 5                  | 80/0.4                | 1                               | 6.08                      |
| LDIS09CYUAYL001C016S | 16   | 5                  | 126/0.4               | 1                               | 7.12                      |

## **Electrical Characteristics**

Current carrying capacity and Max. DC conductor resistance.

| Nominal cross<br>sectional area<br>mm² | Class of conductor | Reference Method B (enclosed in conduit on a wall or in trunking etc.)  Amp. | Reference Method<br>C (clipped direct) | Maximum DC conductor resistance at 20°C Ω/km |
|--|--------------------|--|--|--|
| 0.75                                   | 5                  | 8.0  | 8.54                                   | 26   |
| 1                                      | 2                  | 13.5   | 14.64                                  | 18.1   |
| 1                                      | 5                  | 12.7   | 13.9                                   | 19.5   |
| 1.5                                    | 2                  | 17.1   | 19.52                                  | 12.1   |
| 1.5                                    | 5                  | 16.2   | 18.5                                   | 13.3   |
| 2.5                                    | 2                  | 23.2   | 26.84                                  | 7.41   |
| 2.5                                    | 5                  | 22.0   | 25.5                                   | 7.98   |
| 4                                      | 5                  | 31.2   | 34.8                                   | 4.95   |
| 6                                      | 5                  | 37.2   | 44.4                                   | 3.3  |
| 10                                     | 5                  | 50.4   | 61.2                                   | 1.91   |
| 16                                     | 5                  | 68.4   | 81.6                                   | 1.21   |

The ambient temperature is 40°C.

Conductor operating temperature 85°C.

# **De-Rating Factor**

De-rating factor for various ambient temperature.

| Air Temperature  | 35°C | 40°C | 45°C | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C | 80°C |
|------------------|------|------|------|------|------|------|------|------|------|------|
| De-Rating Factor | 1.05 | 1    | 0.94 | 0.88 | 0.82 | 0.75 | 0.67 | 0.58 | 0.47 | 0.33 |



