

## 6491B (H07Z-R)

LSOH® Single Core Conduit Wire. BS EN 50525-3-41. 450/750 V



Prysmian 6491B is a single core, low voltage Low Smoke, Zero Halogen (LSOH®) wiring cable designed for installation within conduit, trunking or inside fixed protected environments

### KEY APPLICATIONS

Installation in surface mounted or embedded conduits, or similar closed systems and for fixed protected installation in or on lighting fittings and inside appliances, switch gear and control gear particularly for situations in which low emissions of smoke and acid gas is required. Green/Yellow for use as earth can be installed without mechanical protection.

### FEATURES AND BENEFITS

- Low Smoke, Zero Halogen (LSOH®)
- Manufactured under ISO 9001 Quality management systems

### ADDITIONAL TECHNICAL SUPPORT

- [FAQ's](http://uk.prysmiangroup.com/technical-area/faqs) - uk.prysmiangroup.com/technical-area/faqs
- [Technical email](mailto:tech.info@prysmiangroup.com) - tech.info@prysmiangroup.com
- [Live Chat](http://uk.prysmiangroup.com/technical-area) - uk.prysmiangroup.com/technical-area
- Technical hotline: 02380 295222

### STANDARDS



**BS EN 50525-3-41**  
**BS EN 60332-1-2**  
**BS EN 61034-2**  
**BS EN 60754-1**

Construction Standard  
 Flame Propagation - Single Cable  
 Smoke emission  
 Corrosive and acid gas

### CONSTRUCTION

|                          |                        |
|--------------------------|------------------------|
| Conductor material       | Copper                 |
| Conductor surface        | Bare                   |
| Core insulation material | Low smoke zero halogen |

## APPLICATIONS PROPERTIES

|                                    |                                    |
|------------------------------------|------------------------------------|
| Nominal voltage U0 [V]             | 450                                |
| Nominal voltage U [V]              | 750                                |
| Flame retardant                    | In accordance with BS EN 60332-1-2 |
| Halogen free                       | Yes                                |
| Low smoke                          | Yes                                |
| Max. conductor temperature [°C]    | 90                                 |
| Min. Operation temperature [°C]    | -25                                |
| UV resistant                       | Yes                                |
| Min. Installation temperature [°C] | 0                                  |
| Max. Installation temperature [°C] | 80                                 |
| Bending radius (rule)              | 6D                                 |

## COLOURS

A range of insulation colours are available, including green/yellow

## CURRENT RATINGS

Refer to table 4E1 of BS 7671 Requirements for Electrical Installations. IET Wiring Regulations

Note: Where a conductor operates at a temperature exceeding 70°C it shall be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature

## TECHNICAL DATA

| Nominal cross section conductor [mm²] | Conductor category | Nominal thickness insulation [mm] | Nominal outer diameter [mm] | Cable weight [kg/km] | Conductor resistance at 20° C [Ohm/km] | Embodied Carbon [CO2e kg/km] |
|---------------------------------------|--------------------|-----------------------------------|-----------------------------|----------------------|----------------------------------------|------------------------------|
| 1.5                                   | Class 2 = stranded | 0.7                               | 3                           | 22                   | 12.1                                   | 124                          |
| 2.5                                   | Class 2 = stranded | 0.8                               | 3.7                         | 33                   | 7.41                                   | 194                          |
| 4                                     | Class 2 = stranded | 0.8                               | 4.2                         | 48                   | 4.61                                   | 298                          |
| 6                                     | Class 2 = stranded | 0.8                               | 4.8                         | 68                   | 3.08                                   | 439                          |
| 10                                    | Class 2 = stranded | 1                                 | 6.3                         | 120                  | 1.83                                   | 740                          |
| 16                                    | Class 2 = stranded | 1                                 | 6.9                         | 175                  | 1.15                                   | 1,145                        |
| 25                                    | Class 2 = stranded | 1.2                               | 8.4                         | 260                  | 0.727                                  | 1,828                        |
| 35                                    | Class 2 = stranded | 1.2                               | 9.5                         | 350                  | 0.524                                  | 2,487                        |
| 50                                    | Class 2 = stranded | 1.4                               | 11.2                        | 475                  | 0.387                                  | 3,384                        |
| 70                                    | Class 2 = stranded | 1.4                               | 12.8                        | 670                  | 0.268                                  | 4,825                        |
| 95                                    | Class 2 = stranded | 1.6                               | 15.2                        | 940                  | 0.193                                  | 6,740                        |
| 120                                   | Class 2 = stranded | 1.6                               | 16.5                        | 1,200                | 0.153                                  | 8,424                        |
| 150                                   | Class 2 = stranded | 1.8                               | 18.4                        | 1,450                | 0.124                                  | 10,410                       |
| 185                                   | Class 2 = stranded | 2                                 | 21                          | 1,800                | 0.0991                                 | 13,065                       |
| 240                                   | Class 2 = stranded | 2.2                               | 24                          | 2,400                | 0.0754                                 | 17,140                       |
| 300                                   | Class 2 = stranded | 2.4                               | 26                          | 3,000                | 0.0601                                 | 21,639                       |
| 400                                   | Class 2 = stranded | 2.6                               | 30                          | 3,800                | 0.047                                  | 27,054                       |
| 500                                   | Class 2 = stranded | 2.8                               | 34                          | 4,900                | 0.0366                                 | 34,538                       |
| 630                                   | Class 2 = stranded | 2.8                               | 37                          | 6,100                | 0.0283                                 | 44,471                       |

\*The embodied carbon figure is taken from a single product in the range, for more information on how we calculate our embodied carbon figure visit here: <https://uk.prysmiangroup.com/embodied-carbon>