Prysmian

A Brand of Prysmian Group

FP400®

Fire Resistant Armoured Power Cable. BS 7846-F2. 600/1000 V

Prysmian FP400 is a tough, armoured cable with low fire hazard properties and limited fire resistance

KEY APPLICATIONS

Designed primarily for clipped directly to a surface, on tray, in basket or in free air. Fire resistant, low fire hazard armoured power and control cable that can also be laid direct in ground or in ducts in free draining soil, or embedded in concrete.

Use for fire performance circuits in public buildings.

FEATURES AND BENEFITS

- Fire resistant to BS 7846 F2
- Robust armour provides cable with added mechanical protection
- Reduced flame propagation
- Low smoke and corrosive gas emissions Low Smoke, Zero Halogen (LSOH®)
- Manufactured under ISO 9001 Quality management systems
- Designed to meet the requirements of London Underground LUL - S1085 - Fire Safety Performance of Materials - Stations and Tunnel Infrastructure
- Multi core steel wire armour

ADDITIONAL TECHNICAL SUPPORT

- FAQ's- uk.prysmiangroup.com/technical-area/faqs
- Technical email - tech.info@prysmiangroup.com
- Live Chat - uk.prysmiangroup.com/technical-area
- Technical hotline: 02380 295222

STANDARDS

BS 7846 - Category F2	Construction Standard
BS 6387 Category CWZ	Fire Resistant Tests
BS EN 61034-2	Smoke emission
BS EN 60754-1	Corrosive and acid gas
BS EN 60332-1-2	Flame Propagation - Single Cable
BS EN 60332-3-24	Flame Propagation - Multiple (bunched) Cables - Category C

CONSTRUCTION

Conductor material	Copper
Conductor surface	Bare
Core insulation material	Mica + XLPE
Armouring/reinforcement	Wire
Armouring	Yes
Material inner sheath	Low smoke zero halogen
Material outer sheath	Low smoke zero halogen
Cable shape	Round

APPLICATIONS PROPERTIES

Nominal voltage U0 [V]	600
Nominal voltage U [V]	1,000
Flame retardant	In accordance with BS EN 60332-3-24
Halogen free	Yes
Low smoke	Yes
Max. conductor temperature [°C]	90
Min. Operation temperature [°C]	-25
UV resistant	Yes
Outdoor installation	Yes
Min. Installation temperature [°C]	0
Max. Installation temperature [°C]	80
Underground installation	Yes
Bending radius (rule)	8D

COLOURS

Insulation: Two Cores: Brown, Blue;

Three Cores: Brown, Black, Grey;

Four Cores: Blue, Brown, Black, Grey;

Five Cores: Blue, Brown, Black, Grey, Green/Yellow;

7 to 37 Cores: White (with printed numbers);

Sheath:Black

CURRENT RATINGS

Refer to table 4E4 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

Number of cores	Nominal cross section conductor [mm²]	Shape of conductor	Nominal diameter of armouring wire [mm]	Nominal diameter under armour [mm]	Nominal outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]	Embodied Carbon [CO2e kg/km]
2	1.5	Round	0.9	9.1	13.4	345	12.1	912
2	2.5	Round	0.9	10.2	14.8	415	7.41	1,113
2	4	Round	0.9	11.4	15.8	480	4.61	1,377
2	6	Round	0.9	12	16.6	550	3.08	1,721
2	10	Round	0.9	15.1	19.8	740	1.83	2,636
2	25	Round	1.25	19.6	26	1,400	0.727	5,196
2	35	Round	1.6	23	29	1,900	0.524	7,216
2	70	Sector-shaped	1.6	25	33	2,600	0.268	12,049
2	120	Sector-shaped	2	29	37	3,900	0.153	20,556
3	1.5	Round	0.9	9.3	13.9	370	12.1	1,058
3	2.5	Round	0.9	10.8	15.4	455	7.41	1,347
3	4	Round	0.9	11.6	16.3	525	4.61	1,694
3	6	Round	0.9	13.3	17.8	650	3.08	2,243
3	10	Round	1.25	16	22	1,000	1.83	3,719
3	16	Round	1.25	17.6	24	1,250	1.15	4,862
3	35	Round	1.6	25	32	2,300	0.524	9,750
3	70	Sector-shaped	1.6	28	35	3,300	0.268	17,008
4	1.5	Round	0.9	10.2	14.8	415	12.1	1,258
4	2.5	Round	0.9	12.1	16.9	530	7.41	1,643
4	4	Round	0.9	13	17.6	610	4.61	2,072
4	6	Round	1.25	14.7	21	880	3.08	3,038
4	10	Round	1.25	17.6	24	1,150	1.83	4,595
4	16	Round	1.25	19.3	25	1,450	1.15	6,104
4	25	Round	1.6	24	30	2,200	0.727	9,288
4	35	Round	1.6	28	34	2,800	0.524	12,481
4	50	Sector-shaped	1.6	29	35	3,200	0.387	15,982
4	70	Sector-shaped	2	31	39	4,200	0.268	23,188
4	95	Sector-shaped	2	34	42	5,300	0.193	30,623
4	120	Sector-shaped	2.5	38	48	6,800	0.153	38,761
4	150	Sector-shaped	2.5	42	52	8,100	0.124	47,104
4	185	Sector-shaped	2.5	47	57	9,900	0.0991	58,438
4	240	Sector-shaped	2.5	53	63	12,200	0.0754	74,597
4	300	Sector-shaped	2.5	58	68	14,900	0.0601	92,551
4	400	Sector-shaped	3.15	65	77	19,400	0.047	119,382
5	1.5	Round	0.9	11.2	15.6	445	12.1	1,430

TECHNICAL DATA

Number of cores	Nominal cross section conductor [mm²]	Shape of conductor	Nominal diameter of armouring wire [mm]	Nominal diameter under armour [mm]	Nominal outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]	Embodied Carbon [CO2e kg/km]
5	2.5	Round	0.9	12.9	17.3	550	7.41	1,849
5	4	Round	0.9	14.2	18.7	660	4.61	2,408
5	6	Round	1.25	16.3	23	990	3.08	3,607
7	1.5	Round	0.9	12.2	16.8	520	12.1	1,844
7	2.5	Round	0.9	14.9	19.4	700	7.41	2,455
12	1.5	Round	1.25	16.2	22	860	12.1	3,091
19	1.5	Round	1.25	19	25	1,150	12.1	4,337
27	1.5	Round	1.6	24	30	1,650	12.1	6,264
37	1.5	Round	1.6	27	33	1,950	12.1	8,002

*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