

## OVERVIEW

Fumeguard™ is the only complete range of cables available from a single manufacturer that is fully compliant to BS7211. The range includes HO5ZZ-R,U; HO7ZZ-R,U; HO5ZZH2-F; HO5-K,R,U; HO7-K,R,U; and HO5Z1Z1-F among others. Fumeguard™ is manufactured to BS6500 using the same low smoke zero halogen insulation and sheathing materials as called up in BS7211.

Fumeguard™ cables are rated to a maximum sustained conductor operating temperature of 90°C. This gives Fumeguard™ cables a better current rating capacity - Table 4E2A of BS7671 Wiring Regulations. This provides the opportunity to use a reduced conductor.

Fumeguard™ cables are fire safety tested to:

SMOKE EMISSION:	<b>BS EN 61034</b>	<b>IEC 61034-2</b>
FLAME RETARDANT:	<b>BS EN 60332-1-2</b>	
ACID GAS EMISSION:	<b>BS EN 50267-2-1</b>	<b>IEC 60754-1</b>
DEGREE OF ACIDITY EMISSIONS:	<b>BS EN 50267-2-3</b>	<b>IEC 60754-2</b>

Fumeguard™ cables are manufactured using a thermosetting insulating material. This offers improved resistance to external attack by chemicals, improved mechanical strength and abrasion resistance compared to cables manufactured using thermoplastic insulating materials.

Specifiers can rely on the Fumeguard™ name as it complies fully with International (IEC) and British Standards (BS). Not all cables are 'fire safety' compliant to these standards despite being promoted as so.



All our cables are manufactured with materials which are compliant with RoHS and WEEE directives.

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# FUMEGUARD™

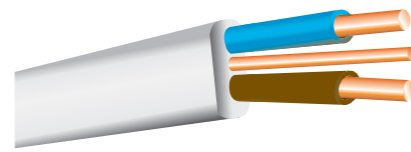
LOW SMOKE ZERO HALOGEN CABLES

## NO7ZZ-R,U & NO5ZZ-R,U 6181B; 6241B; 6242B; and 6243B INSULATED & SHEATHED CABLES

Used for surface wiring in power and lighting applications. Sheath has UV protection against direct sunlight.

**OPERATING TEMP:** 90°C  
**COLOURS:** White as standard. Other colours available on request.  
**CORES:** 2 Core- Blue and Brown. 3 Core - Brown, Black and Grey.  
**PACKAGING:** 50 and 100 metre lengths. Other lengths available on request.  
**APPROVALS:** BASEC

Conductor mm <sup>2</sup>	Conductor Construction	Mean Overall Diameter (mm)			Conductor Resistance ohm/km @20°C
		1 Core / 6181B	2 Core / 6242B	3 Core / 6243B	
1.0	1 / 1.3	4.10	4.10 x 8.65	4.60 x 9.70	18.10
1.5	1 / 1.37	4.45	4.55 x 8.80	4.75 x 11.45	12.10
2.5	1 / 1.77	5.05	5.40 x 10.50	5.46 x 13.40	7.41
4.0	7 / 0.85	6.05	6.10 x 12.00	-	4.61
6.0	7 / 1.04	6.60	6.90 x 13.80	-	3.08
10.0	7 / 1.35	7.90	8.40 x 18.50	-	1.83
16.0	1 / 1.70	9.10	9.70 x 20.60	-	1.15



NEW STRIP EASY VERSIONS AVAILABLE AS 6242B CABLES

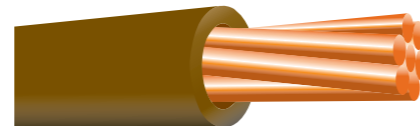
## HO5Z-R,U & HO7Z-R,U 6491B SINGLE CORE INSULATED CABLES

General purpose power and lighting cables, often used within protective conduit or trunking installations. Can also be used within light fittings, appliance wiring and control gear.

**OPERATING TEMP:** 90°C  
**COLOURS:** Blue; Brown; Black; Grey; Green/Yellow. Other colours available on request.  
**CORES:** Single  
**PACKAGING:** 50 and 100 metre lengths. Other lengths available on request.  
**APPROVALS:** BASEC

**TECHNICAL DATA**  
**INSULATION RESISTANCE K VALUE:** 0.037M ohms/km at 90°C  
**TENSILE STRENGTH (MIN):** 10.0 N/mm<sup>2</sup>  
**% ELONGATION (MIN):** 125%  
**HOT SET ELONGATION AT 200°C (MAX):** 100%  
**LOW TEMPERATURE BEND:** -15°C  
**VOLTAGE TEST AT 20°C:** Pass 2.5 KV  
**TEST UNDER FIRE CONDITIONS:** BS EN 60332  
**CORROSIVE ACID GAS EMISSIONS:** <0.5% to BS EN 50267  
**SMOKE EMISSION:** Pass BS7211

Conductor mm <sup>2</sup>	Conductor Construction	Mean Overall Diameter (mm)	Conductor Resistance ohm/km @20°C
1.0	1 / 1.3	2.35	18.10
1.5 x 7	7 / 0.53	3.00	12.10
2.5 x 7	7 / 0.67	3.60	7.41
4.0	7 / 0.85	4.10	4.61
6.0	7 / 1.04	4.70	3.08
10.0	7 / 1.35	6.00	1.83
16.0	7 / 1.70	7.00	1.50
25.0	7 / 2.14	8.70	0.727



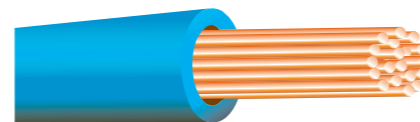
## HO5Z-K & HO7Z-K 2491B SINGLE CORE INSULATED WIRES

Flexible single core wires used typically in control panels.

**OPERATING TEMP:** 90°C  
**COLOURS:** Blue; Brown; Black; Grey; Green/Yellow. Other colours available on request.  
**CORES:** Single  
**PACKAGING:** 50 and 100 metre lengths. Other lengths available on request.  
**APPROVALS:** BASEC

**TECHNICAL DATA**  
**INSULATION RESISTANCE K VALUE:** 0.037M ohms/km at 90°C  
**TENSILE STRENGTH (MIN):** 10.0 N/mm<sup>2</sup>  
**% ELONGATION (MIN):** 125%  
**HOT SET ELONGATION AT 200°C (MAX):** 100%  
**LOW TEMPERATURE BEND:** -15°C  
**VOLTAGE TEST AT 20°C:** Pass 2.5 KV  
**TEST UNDER FIRE CONDITIONS:** BS EN 60332  
**CORROSIVE ACID GAS EMISSIONS:** <0.5% to BS EN 50267  
**SMOKE EMISSION:** Pass BS7211

Conductor mm <sup>2</sup>	Conductor Construction	Mean Overall Diameter (mm)	Conductor Resistance ohm/km @20°C
0.5	16 / 0.20	2.12	39.00
0.75	24 / 0.20	2.33	26.00
1.0	32 / 0.20	2.48	19.50
1.5	30 / 0.25	2.98	13.30
2.5	50 / 0.25	3.63	7.98
4.0	56 / 0.25	4.23	4.95
6.0	84 / 0.30	4.83	3.30
10.0	80 / 0.40	5.85	1.91

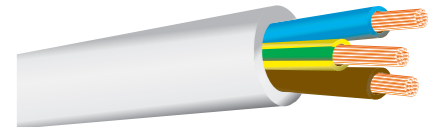


## HO5Z1Z1-F 3182B; 3183B; 3184B AND 3185B INSULATED & SHEATHED FLEXIBLE CORDS

Used for supply leads for domestic and office appliances and within light fittings. This cable is manufactured generally to HD 21.14 S1 and generally to BS6500 Table 27

**OPERATING TEMP:** 70°C  
**COLOURS:** White and Black sheath. Other colours available on request.  
**CORES:** 2 Core- Blue and Brown. 3 Core - Blue, Brown, Green/Yellow.  
**PACKAGING:** 50 and 100 metre lengths. Other lengths available on request.

Conductor mm <sup>2</sup>	Conductor Construction	Mean Overall Diameter (mm)				Conductor Resistance ohm/km @20°C
		2 Core 3182B	3 Core 3183B	4 Core 3184B	5 Core 3185B	
0.75	24 / 0.20	6.50	6.70	7.60	8.60	26.00
1.0	32 / 0.20	6.80	7.05	8.15	9.40	19.50
1.25	40 / 0.20	7.50	8.05	-	-	15.60
1.5	30 / 0.25	7.80	8.25	9.60	10.60	13.30
2.5	50 / 0.25	9.25	10.20	11.30	-	7.98
4.0	56 / 0.30	-	11.50	12.50	-	4.95



**INSULATION**  
 MADE WITH LOW SMOKE ZERO HALOGEN THERMOPLASTIC MATERIAL (TYPE T16)

**CONDUCTOR RESISTANCE:** As per BS60228  
**INSULATION THICKNESS:** As per HD 21.14 S1  
**INSULATION RESISTANCE (MIN):** 0.02M ohms/km at 70°C  
**TENSILE STRENGTH (MIN):** 7.5 N/mm<sup>2</sup>  
**% ELONGATION (MIN):** 150%  
**FLAME TEST:** BS EN 60332  
**SMOKE EMISSION:** As per BS61034  
**CORROSIVE ACID GAS EMISSIONS:** <0.5% to BS EN 50267  
**VOLTAGE TEST:** Pass 2.5 KV at 20°C

**SHEATHING**  
 MADE WITH LOW SMOKE ZERO HALOGEN THERMOPLASTIC MATERIAL (TYPE TM7)

**SHEATH THICKNESS:** As per BS6500 Table 27  
**CABLE OD:** As per BS6500 Table 27  
**TENSILE STRENGTH (MIN):** 10.0 N/mm<sup>2</sup>  
**% ELONGATION (MIN):** 150%  
**RESISTANCE TEST:** 0.02M ohms/km at 70°C  
**OXYGEN INDEX:** 35% at 270°C  
**CORROSIVE ACID GAS EMISSIONS:** <0.5% to BS EN 50267  
**TEST UNDER FIRE CONDITIONS:** BS EN 60332

ALSO AVAILABLE IN 70°C VERSIONS

THESE CABLES ARE INTENDED FOR THE SAME APPLICATION AS PVC CABLES BUT WHERE THERE IS A LOW SMOKE ZERO HALOGEN REQUIREMENT. ALSO AVAILABLE IN 90°C VERSIONS

## ARCTIC LOW SMOKE ZERO HALOGEN CABLES

Insulated and flexible cords used for extension leads and temporary wiring.

**OPERATING TEMP:** -40°C to 70°C  
**COLOURS:** Yellow and Blue sheath. Other colours available on request.  
**CORES:** 2 Core- Blue and Brown. 3 Core - Blue, Brown, Green/Yellow.  
**PACKAGING:** 50 and 100 metre lengths. Other lengths available on request.

Conductor mm <sup>2</sup>	Conductor Construction	Mean Overall Diameter (mm)				Conductor Resistance ohm/km @20°C
		2 Core 3182B	3 Core 3183B	4 Core 3184B	5 Core 3185B	
0.75	24 / 0.20	6.50	6.70	7.60	8.60	26.00
1.0	32 / 0.20	6.80	7.05	8.15	9.40	19.50
1.25	40 / 0.20	7.50	8.05	-	-	15.60
1.5	30 / 0.25	7.80	8.25	9.60	10.60	13.30
2.5	50 / 0.25	9.25	10.20	11.30	-	7.98
4.0	56 / 0.30	-	11.50	12.50	-	4.95



**INSULATION**  
 MADE WITH LOW SMOKE ZERO HALOGEN THERMOPLASTIC MATERIAL (TYPE T16)

**CONDUCTOR RESISTANCE:** As per BS60228  
**INSULATION THICKNESS:** As per BS6500 Table 27  
**INSULATION RESISTANCE (MIN):** 0.02M ohms/km at 70°C  
**TENSILE STRENGTH (MIN):** 7.5 N/mm<sup>2</sup>  
**% ELONGATION (MIN):** 150%  
**FLAME TEST:** BS EN 60332  
**SMOKE EMISSION:** As per BS7211  
**CORROSIVE ACID GAS EMISSIONS:** <0.5% to BS EN 50267  
**VOLTAGE TEST:** Pass 2.5 KV at 20°C

**SHEATHING**  
 MADE WITH LOW SMOKE ZERO HALOGEN THERMOSET MATERIAL TM7 TO HD21.14S1

**SHEATH THICKNESS:** As per BS6500 Table 27  
**CABLE OD:** As per BS6500 Table 27  
**TENSILE STRENGTH (MIN):** 7.5 N/mm<sup>2</sup>  
**% ELONGATION (MIN):** 150%  
**RESISTANCE TEST:** 0.02M ohms/km at 70°C  
**CORROSIVE ACID GAS EMISSIONS:** <0.5% to BS EN 50267  
**TEST UNDER FIRE CONDITIONS:** BS EN 60332

THESE CABLES ARE INTENDED FOR THE SAME APPLICATION AS ARCTIC PVC CABLES BUT WHERE THERE IS A LOW SMOKE ZERO HALOGEN REQUIREMENT

## OTHER IDH PRODUCTS

IDH offers a range of cables including Kilflam Fire Resistant cables for standard and enhanced applications; Guardian, multi-purpose pre-wired mechanically-protected conduit cables; and a range of standard pvc cables and flexibles, including our new Strip Easy Twin and Earth cables. Please see [www.idh.ie](http://www.idh.ie) for more information.