



TOXFREE ZH ES05Z1-K & H07Z1-K (AS)

The Marine wiring cable

EN 50525-3-31 / UNE 211002 / UL 1581

DESIGN

1. Conductor

Electrolytic copper, class 5 (flexible), based on EN 60228 and IEC 60228.

2. Insulation

Extra sliding low smoke zero halogen (LSZH) polyolefin insulation.

The standard identification of insulated conductors is the following:

Blue RAL 5015

Brown RAL 8003

Black RAL 9005

Red RAL 3000

Yellow/green RAL 1021 / RAL 6018

Grey RAL 7000

Dark Blue RAL 5003

White RAL 9010

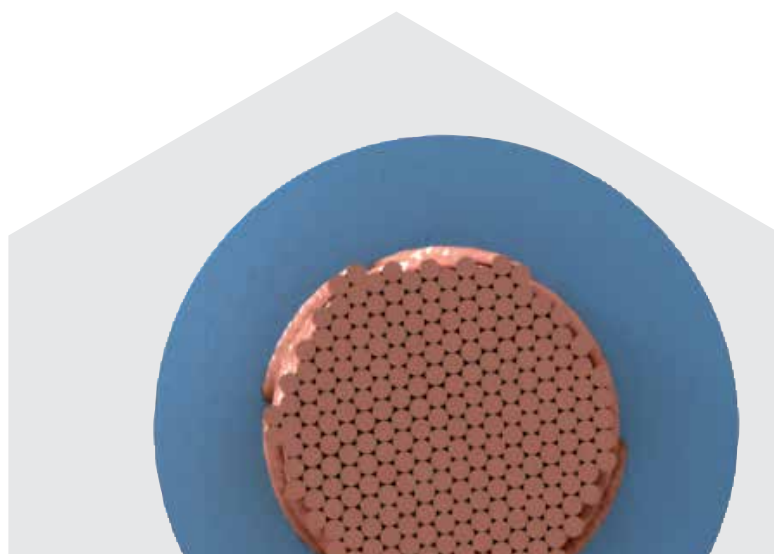
Orange RAL 2003

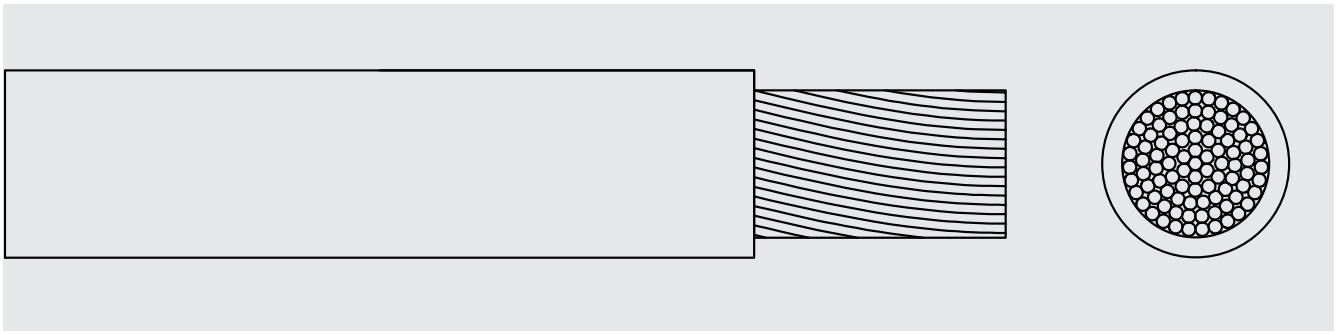
Violet RAL 4005

Other colours available on request

APPLICATIONS

Toxfree ES05Z1-K & H07Z1-K is a LSZH safety cable. In the event of fire, it does not emit toxic gases, nor does it give off corrosive gases, avoiding any possible damage to people or electronic equipment. For this reason it is highly recommended for switchboard wiring in marine applications.





CHARACTERISTICS



Electrical performance

LOW VOLTAGE 300/500 V · 450/750 V · UL 600 V



Standards

EN 50525-3-31 / UNE 211002 / UL 1581



Approvals

CE
SEC
HAR
BUREAU VERITAS
SASO
AENOR
RoHS
UL (in progress)



Thermal performance

Maximum service temperature: 90°C (UL 1581) / 70°C (EN 50525-3-31).
Maximum short-circuit temperature: 160°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations).



Fire performance

Flame non-propagation based on EN 60332-1 and IEC 60332-1.
Fire non-propagation based on EN 60332-3-22 and IEC 60332-3-22.
LSZH (Low Smoke Zero Halogen) based on EN 60754-1 and IEC 60754-1.
Low smoke emission based on EN 61034 and IEC 61034: Light transmittance > 60%
Low corrosive gases emission based on EN 60754-2 and IEC 60754-2.



Mechanical performance

Minimum bending radius: x5 cable diameter.



Chemical performance

Chemical & Oil resistance: Acceptable.



Water performance

Water resistance: AD3 Sprays.



Other

Metre by metre marking. (from 10mm² onwards)



Installation conditions

In conduit.



Applications

Marine use.
Electrical panel wiring.
Public places.



Packaging

Small cross sections (from 0,75 mm² to 6 mm²) are supplied in high-resistant boxes. Medium cross sections (from 10 mm² to 35 mm²) are supplied in 100 m sealed coils. Greater cross sections (>35 mm²) are supplied in drums.





DIMENSIONS

Cross section (mm ²)	Diameter (mm)	Aprox Weight (Kg/km)	Open Air 30°C (A)	Buried (3 cores)	Voltage Drop (V/A · km)
1 x 0,75	2,3	11	11	-	62,40
1 x 1	2,5	13	14	-	46,80
1 x 1,5	2,9	19	17,5	15,5	31,90
1 x 2,5	3,5	30	24	21	19,20
1 x 4	4,1	44	32	28	11,90
1 x 6	4,6	62	41	36	7,92
1 x 10	6,0	106	57	50	4,58
1 x 16	6,9	157	76	68	2,90
1 x 25	8,8	246	101	89	1,87
1 x 35	9,9	336	125	110	1,33
1 x 50	11,8	476	151	134	0,93
1 x 70	13,5	657	192	171	0,65
1 x 95	15,6	873	232	207	0,49
1 x 120	17,0	1.096	269	239	0,39
1 x 150	18,9	1.375	309	275	0,31
1 x 185	21,5	1.678	353	314	0,25
1 x 240	24,5	2.205	415	370	0,19

Maximum admissible intensities according to IEC 60364-5-52.

For other installation conditions, please refer to correction factors in the appendix to this catalogue.

See more technical data on the particular cable specification.

Top Cable reserves the right to carry out any modification to the data sheets whatsoever without giving previous notice.

For more information: sales@topcable.com