



# TOXFREE PLUS 331 ZH RZ1-K (AS+)

LSZH and fire resistant power cable, for emergency circuits.

IEC 60502-1 / UNE 211025

## DESIGN

### Conductor

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

### Insulation

Mica tape + XLPE

The standard identification of insulated conductors is the following:

1 x	Natural
2 x	Blue + Brown
3 G	Blue + Brown + Green/yellow
4 G	Brown + Black + Grey + Green/yellow
5 G	Brown + Black + Grey + Green/yellow + Blue

### Outer sheath

Low Smoke Zero Halogen (LSZH) polyolefin. Orange colour, non-toxic, fire retardant and fire resistant.



**C<sub>ca</sub>-s1a, d1, a1**

## APPLICATIONS

Toxfree Plus RZ1-K (AS+) is a fire resistant cable, specially designed to ensure the power supply to emergency circuits in the event of fire. During a fire you need critical circuits to work for life safety (signaling lights, fume extractors, acoustic alarms, water pumps, etc) and a secure plant shutdown. For this reason, its use is highly recommended in public places such as: hospitals, tunnels, offices, production plants, laboratories, hotels, etc.





## CHARACTERISTICS



### Electrical performance

LOW VOLTAGE 0,6/1kV



### Standard

IEC 60502-1 / UNE 211025



### Approvals

CE  
RoHS



C<sub>ca</sub>-s1a, d1, a1



### Thermal performance

Maximum service temperature: 90°C.  
Maximum short-circuit temperature: 250°C (max. 5 s).  
Minimum service temperature: -40°C (fixed and protected installations).



### Mechanical performance

Minimum bending radius: x5 cable diameter.  
Impact resistance: AG2 Medium severity.



### Chemical performance

Chemical & Oil resistance: Acceptable.



### Water performance

Water resistance: AD5 Jets.



### Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.  
Fire non-propagation based on UNE-EN 60332-3 and IEC 60332-3 and EN 50399.  
Fire resistant:(PH120) minimum 120 minutes at 840°C:  
Based on EN 50200 and IEC 60331-2 for Ø cable < 20 mm.  
Based on EN 50362 and IEC 60331-1 for Ø cable > 20 mm.  
180' at 950°C (cat C) category C,W & Z based on BS6387.  
Fire resistant 180' at 950°C (cat C) category C,W & Z based on BS6387 (300/500V).  
LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.  
Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%.  
Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.  
Reaction to fire CPR: C<sub>ca</sub>-s1a,d1,a1, according to EN 50575.



### Other

Meter by meter marking.



### Installation conditions

Open Air.  
Buried.  
In conduit.



### Applications

Industrial use.  
Emergency circuits  
Public places.

XLPE / LSZH SAFETY  
POWER CABLES