

ZERO HALOGEN FLAME RETARDANT



HALOGEN LESS WIRES

# ZHFR

An ISO 9001:2000 Certified Co.



a german innovation



Meets additional requirements of international standards



# ZERO HALOGEN FLAME RETARDANT



## ZHFR (Zero Halogen Flame Retardant)

ZHFR (Zero Halogen Flame Retardant) wiring cables are made with an imported specially formulated Non - PVC material which is a product of most advanced polymer technology. It does not emit highly corrosive halogen acid gases / toxic fumes and there is almost nil smoke. In the case of fire the conventional wiring cable will product more toxic gases which is very harmful for the environment and it will also hamper the rescue operations as the visibility becomes 100% nil. To combat this type of situations ZHFR (Zero Halogen Flame Retardant) wiring cables will be very effective.

In this modern world more preference and importance is been given to safety and environment, sophisticated and advanced technology has replaced the conventional ones. To make a building premises more safe and reliable we offer a special and advance product called as ZHFR (Zero Halogen Flame Retardant) . Our ruthless efforts to maintain quality and safety has thus resulted to invent such advance product as ZHFR.

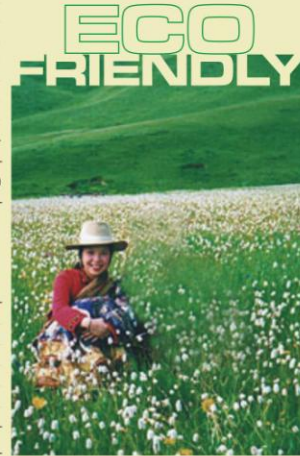
A brief comparison of PVC Cables and ZHFR Cables is given below.

Properties	PVC	FRLS	ZHFR
Halogen Gas (mg/g)	>200	<150 (max)	<0.5 (max)
Corrosive Gas (pH)	1 - 2	2 - 3	6.0
Smoke Density (Rating)	85	50	10
Usage Temperature (°C)	70	85	90
Low Temperature (°C)	- 20	-40	-50
Dioxin	YES	YES	NO
Toxic Halogen Gas	YES	YES	NO
Lead	YES	YES	NO

Single Core Unsheathed Flexible cables in voltage grade 1100 Volts Generally Conform to IS:694:1990

Nominal cross sectional area of Conductor	Number/Nom. Dia. Of wire	Nominal Thickness of Insulation	Overall Diameter (Approx.)	Current carrying capacity # 2 cables, single phase		Max. Resistance of Conductor per Km @ 20°C
				In conduit/ Trunking	Unenclosed-clipped directly to a surface or on cable tray	
Sq.mm	mm	mm	mm	Amps.	Amps.	Ohms.
1.0	14/0.3*	0.7	2.7	11	12	18.10
1.5	22/0.3*	0.7	3.1	13	16	12.10
2.5	36/0.3*	0.8	3.7	18	22	7.41
4.0	56/0.3**	0.8	4.3	24	29	4.95
6	84/0.3**	0.8	5.0	31	37	3.30
10	140/0.3	1.0	6.6	42	51	1.91

Standard Colours : Black, Red, Blue, Yellow, Green. ( for earthing )Supplied in 90 metre lengths in attractive cartons and longer length in multiples of 90 metre in project packing.



### Features

- Doesn't catch flame.
- Non corrosive & Non Toxic.
- Slow to burn reducing fire propagation and immediate threat; gives enough time to operate emergency services.
- Does not contain halogens, thus, hydrochloric acid is not formed during a fire. There is no threat of suffocation.

### Additional ZHFR Properties

Properties	Test Method	Value
Limited Oxygen Index	ASTM - D 2863	35%
Limited Temp. Index	ASTM - D 2863	>300°C
Smoke Density (Light absorption)	ASTM - D 2843	<10%
Acid Gas Generation	IEC - 60754 - 1	<5%

All information given herein is in good faith. Hills Cab shall not be liable for any damages arising out of incorrect uses or interpretation. The company reserves the right to change any of the above specification without any prior notice.

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