

# House Wiring Cables



**Siechem**  
Wires & Cables

IS : 694



CM/L-6798105



IEC 332 - 1  
IEC 332 - 3  
IEEE 383



**PVC / HRPVC / FR / FRLS / PW125 (ZHLS+FR+HR+125<sup>0</sup>C) WIRES & CABLES**

Siechem offers First time in India Electron Beam Irradiated Soldering Iron Resistant Wires & Cables for House wiring

Siechem Wires & Cables Meet EU RoHS Directive

Lead Free	Hg Free	Cd Free	Cr <sup>6+</sup> Free	PBB Free	PBDE Free
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## House Wiring Cables

Siechem house wiring cables are now a premium product. Manufactured with 100% pure electrolytic grade bright annealed bare copper wires having 102% conductivity and insulated with specially formulated in-house PVC / ZHLS compound with high insulation resistance and dielectric strength. First time in India for Building segments, Electron Beamed Irradiation Cross-Linked wires and cables are manufactured by Siechem with enhanced Electrical, Mechanical, Thermal and Fire properties leaving the rest of the competitors far behind. The cables listed hereunder are manufactured to BIS specification IS : 694 : 2010 for working voltage upto and including 1100V.

**TABLE - 1**

Size (Sq.mm)	No. of Wires/ Wire dia of Conductor(max) (mm)	Nominal Insulation Thickness (mm)	Nominal Overall Cable diameter (mm)	Max. DC Resistance at 20°C (Ohms/Km)	Current in Amps		
					PVC / FR / FRLS	Other Brand HFFR	PW125 125°C
1	32/0.21	0.6	2.8	19.5	12	14	19
1.5	30/0.26	0.6	3.1	13.3	16	19	25
2.5	50/0.26	0.7	3.8	7.98	22	26	35
4	56/0.31	0.8	4.4	4.95	29	35	47
6	84/0.31	0.8	5.2	3.30	37	44	59
10	80/0.41	1.0	6.8	1.91	49	58	84

Class 5 Conductor as per IS : 8130 : 2013

Standard Colours : Red, Yellow, Blue, Black and Green supplied in 90 or 180 metre length. Other sizes, colours and lengths are as per customer order.

### TECHNICAL DATA

S.No.	Details	As per IS : 694		Other Brand HFFR	Siechem PW 125
		PVC - FR	FRLS (FR-LSH)		
1	Working Voltage	1100 V	1100 V	1100 V	1100 V
2	Operating Temp	-5° to +70°C	-5° to +70°C	-25° to +90°C	-40° to +125°C
3	Short Circuit Temp	160°C	160°C	160°C	300°C
4	Test Voltage	3 kV for 5 mins	3 kV for 5 mins	3 kV for 5 mins	3.5 kV for 5 mins
5	Oxygen Index	> 29%	> 29%	> 29%	> 29%
6	Temperature Index	> 250°C	> 250°C	> 250°C	300°C
7	Smoke Emission	Very high	Very high	Marginally high	< 8 % Absorption
8	Toxicity Index	Very high	Very high	Marginally high	< 5
9	Halogen / Acid Gas Emission	<20 % by wt	<20 % by wt	0.5	300 ppm
10	Flammability	IS 10810-53	IS 10810-53	IEC 60332 P1	IEC 60332 P1 & P2
11	Varnish Test	Fail	Fail	Fail	Pass
12	Resistance to fluids	N/A	N/A	N/A	No Cracks withstands the HV test
14	Shrinkage	4%	4%	4%	0%
15	Soldering Iron Test	Fail	Fail	Fail	Pass
16	RoHS Test	Fail	Fail	Fail	Pass
17	Long terms ageing test	#	#	#	Tested at 125°C for 3000
18	Abrasion resistance	#	#	#	> 100 cycles
19	Hot deformation	Depth at indentation 50%	#	#	5 %
20	Heat shock	No cracks at 150°C for 1 hour	No cracks at 150°C for 1 hour	No cracks at 125°C for 1 hour	No cracks at 240°C for 6 hours
21	Bending radius	#	#	#	4D

# Not mentioned in Specification

#### HEAD OFFICE

26/27, Errabalu Chetty Street,  
Chennai - 600 001. India.

Tel : +91 44 2522 6141 / 2522 0859

Fax : +91 44 2522 2871

Email : sales@siechem.com

Web : www.siechem.com

## Siechem Technologies Pvt. Ltd.

Approvals & Licenses											
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BSI	ESMA	SGS	CE	REACH	RoHS	IRS	DOGA				

#### FACTORY

RS 104/8 & 105/7, Sedarapet Main Road,  
Pondicherry - 605 101. India.

Tel : +91 413 2671 070 / 2671 071

Fax : +91 413 2671 072

Email : admn@siechem.com

Web : www.siechem.com