

AWM1857/1860/1882

产品结构

- 单根或多股镀锡、镀银、镀镍铜线绞合软导体；镀锡性能参考 GB/T4910-2022 标准；镀银性能参考 JB/T3135-2024 标准；镀镍性能参考 GB/T11019-2021 标准。导体的结构参考 UL758&UL1581 或客户的要求
- 可溶性聚四氟乙烯 PFA 绝缘，绝缘材料性能参考 UL758&UL1581；成品电线电缆的外形尺寸检验方法按 UL758&UL1581；成品电线电缆电性能检验方法参考 UL758&UL1581

技术范围

- 温度范围：-65~+150/+200/+250°C • 额定电压：U0/U 150V • 测试电压：1500V
- 绝缘电阻：20°C时应不小于 $1.0 \times 10^3 \text{M}\Omega \cdot \text{km}$
- 耐辐射性：up to $1 \times 10^6 \text{cJ/kg}$ (up to 1 Mrad)

产品特性

- 具有优良的耐腐蚀性能，抗油、强酸、抗强碱、强氧化剂、抗微生物、不允许任何真菌形成等
- 具有优良的电绝缘性能，具有低且几乎与频率无关的介电特性，耐高电压、高频损耗小，不吸潮吸水率 <0.01%、最小的水蒸气渗透率 (24 小时内约 0.18mgr/cm^2)、绝缘电阻大
- 不易燃，自熄，阻燃测试符合 DIN VDE 0482 第 265-2-1 部分/EN 50265-2-1/IEC 60332-1（等效 DIN VDE 0472 part 804 测试方法 B）
- 不含有害物质，符合 ROHS 标准

应用

- 电子行业中，可用于温度补偿导线，耐低温导线，高温加热导线，耐老化电线以及阻燃电线
- 家用电器行业中，可用于空调机，微波炉，电子消毒柜，电饭煲，电子热水瓶，电暖器，电烤箱，电砂锅，灯具灯饰等内部布线
- 用于安装在受高热影响的控制柜中以及砖厂、加热器、厨房设备和测量设备以及化学工业中
- 高温高频下使用的电子设备传输线，电子计算机内部的连接线，航空宇宙用电缆，及其他特种用途安装线、油矿测井电缆、潜油电机绕组线、微电机引出线等

Product Structures

- Conductor: Stranded flexible conductor composed of single or multiple tinned, silver-plated, or nickel-plated copper wires. Tinning performance reference: GB/T4910-2022. Silver-plating performance reference: JB/T3135-2024. Nickel-plating performance reference: GB/T11019-2021. Conductor structure reference: UL758&UL1581 or customer requirements.
- Insulation: PFA. Insulation material performance reference: UL758&UL1581. Finished wire/cable dimensional inspection method: UL758&UL1581. Finished wire/cable electrical performance test method reference: UL758&UL1581.

Technical Scope

- Temperature Range: -65~+150/+200/+250°C
- Rated Voltage: U0/U 150V
- Test Voltage: 1500V
- Insulation Resistance: Not less than $1.0 \times 10^3 \text{M}\Omega \cdot \text{km}$ at 20°C (Min. $1000 \text{M}\Omega \cdot \text{km}$ at 20°C)
- Radiation resistance: up to $1 \times 10^6 \text{cJ/kg}$ (up to 1 Mrad)

Product Features

- Excellent Chemical Resistance: Resistant to oils, strong acids, strong alkalis, strong oxidizing agents, microorganisms; prevents fungal growth.
- Superior Electrical Insulation Properties: Low and virtually frequency-independent dielectric properties. High voltage resistance, Low high-frequency loss, Non-hygroscopic / Low water absorption (< 0.01%). Minimal water vapor permeability (approx. 0.18 mgr/cm^2 within 24 hours), High insulation resistance.
- Flame Retardant: Self-extinguishing. Passes flame retardancy tests per DIN VDE 0482 Part 265-2-1 / EN 50265-2-1 / IEC 60332-1 (equivalent to DIN VDE 0472 Part 804 Test Method B).
- Environmentally Compliant: Free of hazardous substances; complies with RoHS standards.

Applications

- Electronics Industry: Temperature compensation wires, cryogenic-resistant wires, high-temperature heating wires, aging-resistant wires, flame-retardant wires.
- Household Appliance Industry: Internal wiring for air conditioners, microwave ovens, electronic sterilizers, rice cookers, electric kettles, electric heaters, electric ovens, electric casseroles, lighting fixtures.
- Industrial Environments: Installation in control cabinets subject to high heat, brick factories, heaters, kitchen equipment, measurement devices, and the chemical industry.
- Specialized Applications: Transmission lines for electronic equipment operating at high temperatures and high frequencies, Internal connecting wires for computers, Aerospace cables. Other special-purpose installation wires. Oil well logging cables, Submersible motor winding wires, Micro-motor lead wires.

技术参数 Technical parameters

线规 Guage (AWG)	导体结构 根数 / 线径 Conductor construction: Number/size(mm)	绝缘厚度 Insulation thickness (mm)	平均外径 Average outer diameter (mm)	20℃时导体直流电阻 Max The maximum resistance value of the conductor at 20℃ (Ω/km)	包装长度 The length of package (m)
16	19×0.30	0.25	2.00	14.6	305
17	19×0.26	0.25	1.80	18.3	305
18	19×0.235	0.25	1.70	23.2	305
20	19×0.20	0.25	1.50	36.7	305
	1×0.813	0.25	1.35	35.2	305
22	19×0.16	0.25	1.30	59.4	610
	1×0.65	0.25	1.20	56.4	610
24	7×0.20	0.25	1.10	94.2	610
	1×0.511	0.25	1.05	89.3	610
26	7×0.16	0.25	1.00	150	610
	1×0.404	0.25	0.90	143	610
28	7×0.12	0.25	0.90	239	610
	1×0.32	0.25	0.85	227	610
30	7×0.10	0.25	0.80	381	610
	1×0.254	0.25	0.75	361	610
32	7×0.08	0.25	0.75	596	610
	1×0.20	0.25	0.70	563	610