



**BONES ELECTRONICS CO.,LTD**

单芯塑料光纤光缆  
技术规格书

**Simplex Plastic Optical Fiber Cable  
Technical Specification**

**CCVZ2-1000**

博恩电子有限公司

**Bones Electronics Co.,Ltd.**

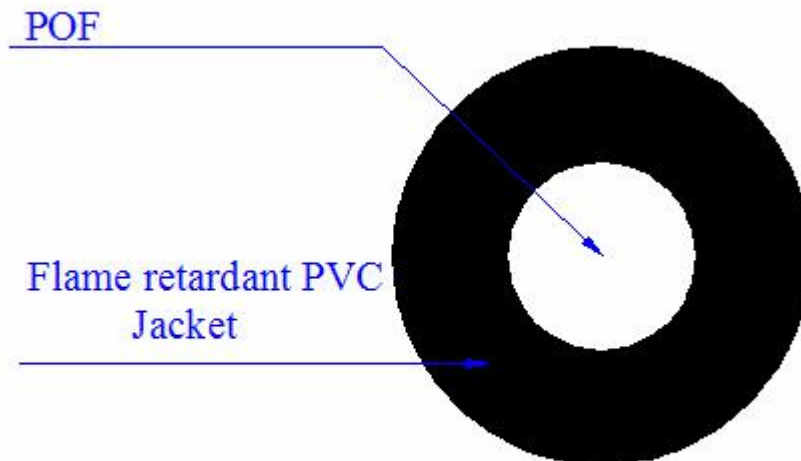
1.产品名称(Product Name): 单芯塑料光纤光缆(Simplex POF Cable)

2.产品型号(Product Type): CCVZ2-1000

3.产品结构(Product Structure)

项目(Item)		技术参数(Technical Parameters)	单位 (Unit)
塑料 光 纤  Plastic Optical Fiber	纤芯材料(Core Material)	聚甲基丙烯酸甲酯(Polymethylmethacrylate)	—
	包层材料(Cladding Material)	氟树脂 (Fluorinated Polymer)	—
	纤芯折射率(Core Refractive Index)	1.49	—
	包层折射率(Cladding Reflective Index)	1.41	—
	折射率类型(Refractive Index Profile)	阶跃型(Step Index)	—
	数值孔径(Numerical Aperture)	0.5±0.05	—
	纤芯直径(Core Diameter)	980±60	μm
	包层直径(Cladding Diameter)	1000±60	μm
护套  Jacket	材料(Material)	阻燃聚氯乙烯 (Flame retardant PVC )	—
	UL号 (Indication of UL style NO.)	N0.5237	
	燃烧试验 (Burning test)	VW-1	Pass
	直径(Diameter)	2.2±0.07	mm
	颜色(Color)	黑色 (Black)	—
单位重量 (Unit weight)		5.2	g/m
产品认证 (Certification)		通过 ROHS、REACH (Pass: ROHS、REACH)	—

4.产品结构示意图 (Product structure diagram)



CCVZ2-1000 Structure Diagram



## 5. 性能 (Performance):

项目(Item)		条件 (Condition)	技术参数(Technical Parameters)	单位(unit)
光学性能 (Optical Performance)	衰减(Attenuation)	T=25 °C @650nm	≤0.15	dB/m
	带宽(Bandwidth)	—	≥10	MHz·100m
机械性能 (Mechanical Performance)	4%伸长率拉伸力 (4%Tensile Strength)	拉伸速度: 100 mm/min (Tensile Speed: 100 mm/min)	≥56	N
	短暂拉伸力 (Short Term Tensile Force)	持续时间小于 30min (Keep time is less than 30 minutes)	≤50	N
	短暂弯曲半径 (Short Term Bend Radius)	非工作状态下、持续时间小于 1 小时 (Keep time is less than 1 hour non-operating)	≥25	mm
	长期弯曲半径 (Long Term Bend Radius)	无物理损伤和光学性能损伤 (No Physical Deterioration and Optical Property)	≥35	mm
	压扁(Crush)	压力(Crush Strength): 700N/100mm 持续(Keeping Time): 1min	套层应无目视可见开裂(Under visual examination the Jacket shall be no splitting) 衰减变化值≤0.2(Change in attenuation shall not exceed 0.2)	dB
	冲击(Impact)	撞击面半径(Radius of striking surface): 12.5mm 冲击能量(Impact Energy): 0.2N·m 冲击次数(Impact Numbers): 3 次 冲击点间距(Impact Point Distance): 500mm	套层应无目视可见开裂 Under visual (examination the Jacket shall be no splitting) 衰减变化值≤0.2 (Change in attenuation shall not exceed 0.2)	dB
	弯曲(Bend)	芯轴直径(Mandrel Diameter): 50mm 缠绕 6 圈循环 10 次 (Number of turns per helix: 6 Number of Cycles : 10 )	套层应无目视可见开裂 (Under visual examination the Jacket shall be no splitting ) 衰减变化值≤0.2 (Change in attenuation shall not exceed 0.2)	dB
	反复弯曲 (Repeated bending)	弯曲半径(Bending Radius): 15mm 负载((Load Strength): 5N 循环次数(Repeat Times): 1000 弯曲角度 (bend angle) : ±90°	套层应无目视可见开裂 (Under visual examination the Jacket shall be no splitting ) 衰减变化值≤0.2 (Change in attenuation shall not exceed 0.2)	dB
扭转 (Torsion)	轴向张力 (Axial tension ) : 20N 扭转长度 (Twisting Length) : 250mm, 扭转角度 (Torsion Angle) : ±180°, 扭转次数(Torsion times): 20	套层应无目视可见开裂 (Under visual examination the Jacket shall be no splitting ) 衰减变化值≤0.2(Change in attenuation shall not exceed 0.2)	dB	
环境性能 (Environmental Performance)	贮存和工作温度 (Storage and Operating Temperature)	无物理损伤和光学性能损伤 (No Physical Deterioration and Optical Property)	-55~+85	°C
	推荐工作温度 (Recommended Operating Temperature)	无光学性能损伤 (No Deterioration In Optical Properties)	-40~+70	°C
	安装温度 (Installation Temperature)	无光学性能损伤 (No Deterioration In Optical Properties)	-20~+70	°C