



SICHUAN HUIYUAN

**单芯高阻燃塑料光纤光缆
技术规格书**

**Simplex high flame retardant Plastic Optical Fiber Cable
Technical Specification**

CCGZ2-1000

四川汇源塑料光纤有限公司

Sichuan Huiyuan Plastic Optical Fiber Co.,Ltd.

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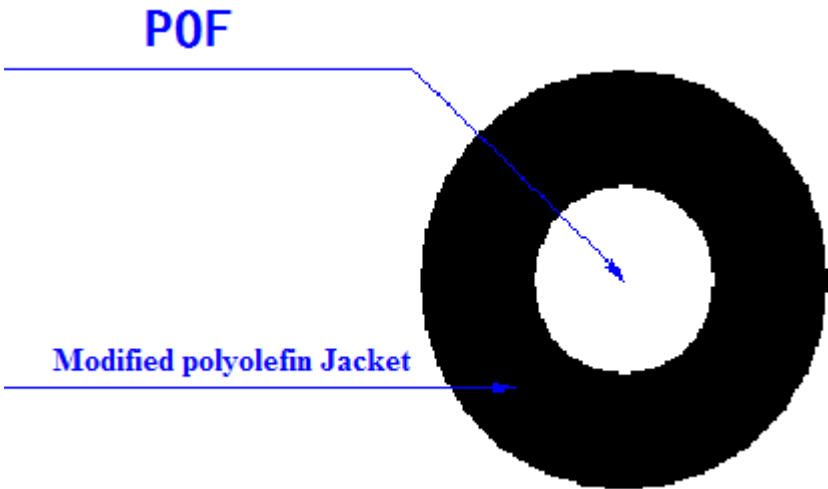
四川汇源塑料光纤有限公司

Sichuan Huiyuan Plastic Optical Fiber Co.,Ltd.

1. 产品名称(Product Name): 单芯高阻燃塑料光纤光缆(Simplex high flame retardant POF Cable)
2. 产品型号(Product Type): CCGZ2-1000
3. 产品结构(Product Structure)

项目(Item)		技术参数(Specification)	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	—
	纤芯直径(Core Diameter)	980±60	μm
	包层直径(Cladding Diameter)	1000±60	μm
护套 Jacket	材料(Material)	阻燃改性聚烯烃 (Flame retardant modified polyolefin)	—
	颜色(Color)	黑色 (Black)	—
	直径(Diameter)	2.2±0.1	mm
单位重量 (Unit Weight)		3.8	g/m

4.产品结构示意图 (Product structure diagram)



CCGZ2-1000 Structure Diagram



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5. 性能 (Performance):

项目(Item)		条件 (Condition)	技术参数(Specification)	单位(Unit)
光学性能 (Optical Performance)	650nm 衰减 (Attenuation)	T=25 °C	≤0.19	dB/m
		T= -55°C ~+85°C	≤0.24	dB/m
	带宽(Bandwidth)	—	≥10	MHz·100m
机械性能 (Mechanical Performance)	5%伸长率拉伸力 (5%Tensile Strength)	拉伸速度: 100 mm/min (Tensile Speed: 100 mm/min)	≥70	N
	短暂拉伸力(Short Term Tensile Force)	持续时间小于 30min, 衰减变化值不 超过 0.5dB (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, 衰减变化值不超过 0.5 (Keep time is less than 1 hour non-operating)	≥22	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)	≥44	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): 0.4N·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≤1 (Change in attenuation shall not exceed 1)	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) : 5N 扭转长度 (Twisting Length) : 1000mm, 扭转角度 (Torsion Angle) : ±180°, 扭转次数(Torsion times): 5	套层应无目视可见开裂 (Under visual examination the Jacket shall be no splitting) 衰 减 变 化 值 ≤1(Change in attenuation shall not exceed 1)	dB
环境性能 (Environmental Performance)	湿热试验 Damp heat	+75°C, 85%RH,1000h	试验后 650nm 衰减≤24	dB/100m
	干热试验 Dry heat	+85°C, 1000h	试验后 650nm 衰减≤24	dB/100m
	温度循环试验 Change of temperature	高限: +85°C, 低限: -55°C, 保温 2 小时, 循环 2 次。(High at+85°C, Low at-55°C,keep 2h,cycle twice)	试验后 650nm 衰减≤24	dB/100m
	推荐储存和工作温度 (Recommended Operating Temperature)	无光学性能损伤 (No DeteriorationIn Optical Properties)	-40~+70	°C
阻燃性能		—	达到 VW-1 阻燃等级	—