



SICHUAN HUIYUAN

**平行双芯塑料光纤光缆
技术规格书**

**Duplex Plastic Optical Fiber Cable
Technical Specification**

DC2-1000

四川汇源塑料光纤有限公司

Sichuan Huiyuan Plastic Optical Fiber Co.,Ltd.

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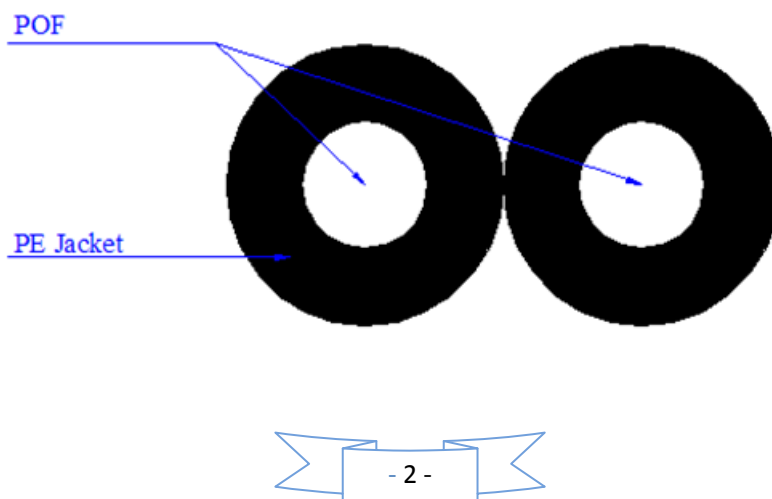
四川汇源塑料光纤有限公司

Sichuan Huiyuan Plastic Optical Fiber Co.,Ltd.

1. 产品名称 (Product Name): 平行双芯塑料光纤缆 (Duplex POF Cable)
2. 产品型号 (Product Type): DC2-1000
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)	聚乙烯 (Polyethylene)	—
	颜色(Color)	黑色 (Black)	—
	直径 (Diameter)	2.2±0.07/4.4±0.2	mm
单位重量 (Unit Weight)		7.4	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)





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 ℃	≤0.19	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)	≥112	N	
	短暂拉伸力(Short Term Tensile Force)	持续时间小于 30min (Keep time is less than 30 minutes)	≤100	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)	≥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): 1400N/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 ⁰	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 No Deterioration In Optical Properties)	-55~+85	℃
		推荐工作温度 (Recommended Operating Temperature)	无光学性能损伤 (No DeteriorationIn Optical Properties)	-40~+70	℃
安装温度 (Installation Temperature)		无光学性能损伤 (No DeteriorationIn Optical Properties)	-20~+70	℃	