



江苏田信塑料光纤有限公司

Jiangsu TX Plastic Optical Fibers Co.,Ltd

单芯塑料光纤光缆

产品规格书

Single core plastic optical fiber cable

Product specifications

TX-SCC4000-1/5.0

2023.03

[www.txpof.com](http://www.txpof.com)



1. 产品名称(Product name): 单芯塑料光纤光缆(Single core plastic optical fiber cable)

2. 产品型号(Product model): TX-SCC4000-1/5.0

3. 产品结构(Product mix):

项目(Item)	技术参数(Technical parameter)	单位(Unit)	
塑料光纤 Plastic optical fiber	纤芯材料 (Core material)	甲基丙烯酸甲酯(MMA)	——
	包层材料 (Cladding material)	氟乙烯-四氟乙烯共聚物(FEP)	——
	纤芯折射率 (Core refractive index)	1.475	——
	包层折射率 (Cladding refractive index)	1.375	——
	纤芯直径 (Core diameter)	3600±150	μm
	包层直径 (Cladding diameter)	4000±200	μm
	纤芯数量 (Number of cores)	1	cores
护套 Jacket	材料 (Material)	聚氯乙烯(Polyvinyl chloride)	——
	尺寸 (Dimensions)	5.0±0.2	mm
	颜色 (Colour)	黑色(Black)	——
	阻燃等级 (Flame retardant grade)	——	——
产品标准(Product standard)	ROHS,REACH,SGS, (YD/T 1447-2013)	——	

4. 产品结构示意图(Product structure diagram):



TX-SCC4000-1/5.0  
Structure diagram



5. 产品性能(Product performance):

项目(Item)		试验条件 (Test conditions)	检验结果 (Inspection results)
光学性能 Optical performance	衰减 (Attenuation )	@650nm	≤320dB/km
机械性能 Mechanical properties	拉伸屈服强度 (Tensile yield strength)	Loading rate: 100mm/min Sample length: 100~200mm Duration: reach 4% elongation	Tensile load: ≥70N
	最小弯曲半径 (Minimum bending radius)	Number of coils per time: 6 Number of cycles: 10 Attenuation change ≤ 2dB	Minimum bending radius: 40mm
	冲击附加衰减 (Additional attenuation of impact)	Radius of impact surface:12.5mm Impact energy: 0.2N · M Impact times: at least 3 times, and the distance between each impact point shall be at least 500mm	Attenuation change ≤2dB
	反复弯曲附加衰减 (Repeated bending additional attenuation)	Bending radius: 40mm Number of cycles: 200 Load: 5N	Attenuation change ≤2dB
	扭转附加衰减 (Torsional additional attenuation)	Number of cycles: 5 Torsional length: 250mm Torsion angle: ± 180 ° Axial tension: 5N	Attenuation change ≤2dB

\*以上所有的测试，均在 25℃ 温度下进行，除非另有说明。

All the above tests are carried out at 25 °C unless otherwise specified.

\*温度范围：-20~+70℃

Temperature range : -20~+70℃

\*应用领域:适用于照明装饰、光纤照明

Application: Applicable to lighting decoration and optical fiber lighting