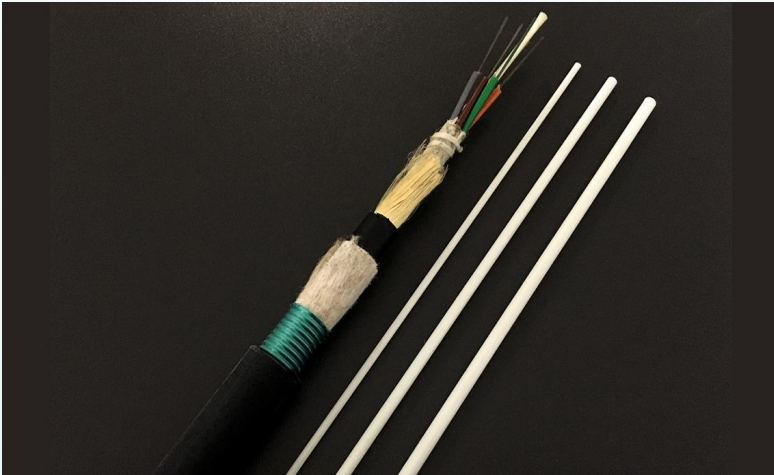


# FRP strength member for optical fiber cable



## Product Description :

A new functional material made of synthetic resin and glass fiber by composite process. The product quality conforms to ISO9001:2015 quality management system certification and RoHS environmental protection standard.

Diameter (mm)	Weight /km	Length(mm) /Reel	N. W. (kg) /Reel
0.5	0.42	50.4	21.27
0.8	1.08	50.4	54.44
0.9	1.37	50.4	68.90
1.0	1.69	50.4	85.06
1.1	2.04	50.4	102.93
1.2	2.43	50.4	122.49
1.3	2.85	50.4	143.76
1.4	3.31	48.8	161.43
1.5	3.80	48.8	185.31
1.6	4.32	48.8	210.85
1.7	4.88	48.8	238.03
1.8	5.47	48.8	266.85
1.9	6.09	48.8	297.33
2.0	6.75	48.8	329.45
2.1	7.44	48.8	363.22
2.2	8.17	24.4	199.32
2.3	8.93	24.4	217.85
2.4	9.72	24.4	237.20
2.5	10.55	24.4	257.38
2.6	11.41	24.4	278.38
2.8	13.23	24.4	322.86
2.9	14.19	24.4	346.33
3.0	15.19	24.4	370.63

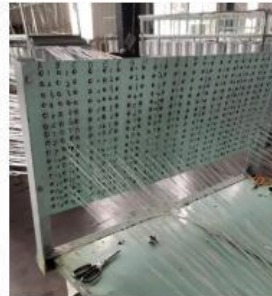
# Physical Properties

No.	Item	Unit/ Condition	Index
1	Apperance	/	Uniform color, no surface cracks, no bur, smooth feel
2	Diameter deviation	mm	$\pm 0.02$
3	Density	g/cm <sup>3</sup>	2.05~2.15
4	Out-of-roundness	/	$\leq 5\%$
5	Tensile strength	MPa	$\geq 1100$
6	Tensile modulus	GPa	$\geq 50$
7	Breaking elongation	/	$\leq 4\%$
8	Bending strength	MPa	$\geq 1100$
9	Bending modulus	GPa	$\geq 50$
10	Coefficient of Linear Expansion	1/°C(-30°C~+80°C)	$\leq 8 \times 10^{-6}$
11	Water absorption	/	$\leq 0.1\%$
12	Minimum bending radius	(25D,20±5°C )	No bur,no crack,no break,smooth surface,back to original straight
13	High Temperature bending performane	(50D,100°C,120h)	No bur,no crack,no break,smooth surface,back to original straight
14	Low bending performane	(50D,-40°C,120h)	No bur,no crack,no break,smooth surface,back to original straight
15	Torsion Performance	( $\pm 360^\circ$ /m)	No disintegration

# Flow Chart



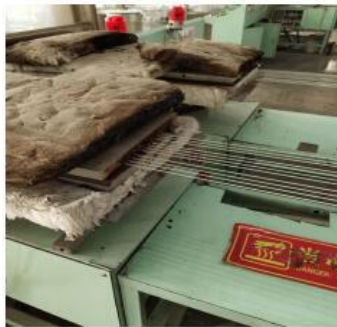
**1. Fiber Rovings**



**2. Fold**



**3. Resin Mixture**



**4. Depanning**



**5. Pulling&Winding**



**6. Reel Alternation**



**7. Finished Products**



**8. Warehouse**



**9. Packaging**

# Certificate - ROHS



## 测试报告

No. SHAEC2005062001

日期: 2020年04月10日 第2页,共8页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	SHA20-050620.001	白色固体

备注:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

### RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法: 参考IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015和IEC 62321-8:2017, 采用ICP-OES, UV-Vis和GC-MS进行分析。

测试项目	限值	单位	MDL	007
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	13
汞(Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND



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Member of the SGS Group (SGS SA)

# Test Report



中国认可  
国际互认  
检测  
TESTING  
CNAS L1073

报告编号: W-08-20-0798



## Test Report

# 检 验 报 告

产品型号: FRP  $\phi$  1.2mm  
 产品名称: FRP non-metallic cable strengthen core  
 产品名称: FRP 非金属光缆加强芯  
 委托单位: Juye Jinhua Plastics Co.,Ltd.  
 委托单位: 巨野金华塑粉有限公司  
 检验类别: 委托检验



武汉网锐检测科技有限公司

信息产业光通信产品质量监督检验中心

工业(光通信)产品质量控制和技术评价实验室



Report No.  
报告编号: W-08-20-0798

TEST REPORT

第 1 页 共 4 页



## 检 验 报 告

产品名称	FRP 非金属光缆加强芯 FRP non-metallic cable strengthen core	产品型号/ 规格	FRP $\phi$ 1.2mm
委托单位	巨野金华塑粉有限公司 Juye Jinhua Plastics Co.,Ltd.	出厂编号/ 生产日期	2020年03月20日
生产单位	巨野金华塑粉有限公司	检验类别	委托检验
生产地址	West of Jinshan Road, North of Xinshi Railway, Juye County 巨野金山路以西新石铁路以北		
到样日期	2020年03月30日	送样者	王全忠
样品基数	—	样品数量	40厘米 20根 20米 1根
样品初始状态	样品初始状态完好,符合检验要求		
检验依据	YD/T 1181.1-2015 光缆用非金属加强件的特性 第1部分:玻璃纤维增强塑料杆		
检 验 结 论	<p style="text-align: center;">武汉网锐检测</p> <p style="text-align: center;">应检 12 项, 实检 12 项。 Reality check:12 items                      其中, 不合格项: 0 项; Non-conformance: 0 items                      合格项: 12 项; Conformance: 12 items                      检验结果详见报告正文数据页。</p>		
备 注	—		



签发日期: 2020年3月21日  
Issue Date

批准: 李君强      审核: 孙江波      主检: 丁玲