



光纤二次被覆 PBT 专用料

PBT resin for Secondary Coating Materials of Optical Fiber

1. 产品型号、用途 Type and application

牌号 Type	名称 Product	用途 Application
GL3020	光纤二次被覆 PBT 专用料 PBT resin	微缆用光纤二次套塑 Secondary plastic coating of optical fiber for micro cable

2. 加工工艺 Processing technology

二次套塑设备 Two sets of plastic equipment

螺杆直径 $\phi 45 \sim \phi 65$ 长径比 25:1 或者 30:1

Screw Diameter $\phi 45 \sim \phi 65$ Draw ratio : 25:1 or 30:1

生产速度

螺杆直径 $\phi 65$, 松套管管径 1.2-1.44mm, 生产速度 800 米/分钟, 推荐的加工温度如下: The recommended processing temperature FOR $\phi 65$, $\phi 1.2-1.4\text{mm}$, Production speed 800m/min

请在使用前充分干燥, 烘干温度 90-110℃, 时间 1-3h. Please fully dry before use at 90-110 °C for 1-3h.

温区 1 ZONE 1	温区 2 ZONE 2	温区 3 ZONE 3	温区 4 ZONE 4	温区 5 ZONE 5	法兰 Flan	机头 1 handpiece1	机头 2 handpiece2	热水 Hot water	温水 Warm water
240	255	260	260	260	260	260	255	50	30

3. 产品性能 Product properties

试验项目 Item	单位 Unit	标准 Standard	测试值 Test value	测试标准 Test Standard
物理性能 physical property				
密度 (23±0.5) °C Density (23±0.5) °C	g/cm ³	1.25~1.35	1.31	GB/T1033-2008
熔融指数 (250°C、2.16KG) Melting Index (250 °C、 2.16KG)	g/10min	12.0~15.0	13.6	GB/T3682-2000
机械性能 Mechanical properties				
屈服强度 Tensile strength at yield	MPa	≥50	55.1	GB/T1040.1-2006
屈服伸长率 Elongation at yield	%	4.0~10	7.2	GB/T1040.1-2006

断裂伸长率 Elongation at break	%	≥ 50	163	GB/T1040.1-2006
拉伸弹性模量 tensile modulus of elasticity	MPa	≥ 2100	2416	GB/T1040.1-2006
弯曲弹性模量 Flexural mode	MPa	≥ 2200	2326	GB/T9341-2000
弯曲强度 Bending strength	MPa	≥ 60	76.7	GB/T9341-2000
邵氏硬度 HD (15s) Shore hardness HD	/	≥ 70	75	GB/T2411-2008
悬臂梁缺口冲击强度 23℃ Izod impact strength 23℃	KJ/m ²	≥ 5.0	6.4	GB/T1843-2008
悬臂梁缺口冲击强度 -40℃ Izod impact strength -40℃	KJ/m ²	≥ 4.0	5.3	GB/T1843-2008
热性能 Thermal performance				
熔点 Melting point	℃	210~240	225	GB/T 28724-2012
负载变形温度 (1.80MPa) Heat distortion temp	℃	≥ 55	58	GB/T1634.2-2004
负载变形温度 (0.45MPa) Heat distortion temp	℃	≥ 170	174	GB/T1634.2-2004
电性能 Electrical performance				
体积电阻系数 Coefficient of volume Resistance	$\Omega \cdot \text{cm}$	$\geq 1 \times 10^{14}$	$> 1.0 \times 10^{14}$	GB/T1410-2006
其他性能 Other performance				
含水量 Moisture content	%	≤ 0.05	0.03	GB/T20186.1-2006
饱和吸水率 Saturation	%	≤ 0.5	0.3	GB/T1034-2008
线膨胀系数 (23~80℃) Coefficient of linear	10^{-4}K^{-1}	≤ 1.5	1.44	GB/T1036-1989

注意事项:

- 1、该产品已干燥并密封包装，用户在使用前需采取热风防潮，建议一级干燥温度控制在 100℃；使用温度控制在 120℃ 干燥时间 $\geq$ 2 小时，对于破包或开包后吸潮的产品需增加干燥时间。
- 2、根据松套管规格尺寸要求、注意对光纤余长控制的工艺参数调整。
- 3、上述结果是基于特定的生产地点与特定的采样时间进行采样检测所得到的。

Note:

- 1.The product should be dried and sealed package. It is recommended that it should be use hot air to avoid moisture before using. The Primary drying temperature should be 100℃, The temperature in using should be controlled at 120℃, Drying time should be more than 2 hours, For the broken bag or after opening which is absorbed moisture, It should be increased drying time .
- 2.According to the size requirements of Loose Tube, the process parameters should be adjusted controlled by optical fiber's surplus length.
- 3.The above results are obtained based on specific production location and specific time to get sample.

4. 储存与运输

包装: 1000 公斤 / 袋，聚丙烯编织袋外包装，内衬铝箔袋；25 公斤 / 袋，牛皮纸外袋，内衬铝箔袋。

运输: 该产品不得淋雨或受潮，保持包装完整，防止破损。

储存: 产品储存在清洁、阴凉、干燥通风、远离火源的仓库内，在空气中水分较大的梅雨季节或发现产品受潮时，应在 100-120℃的条件下干燥 3 小时后使用。

Package: Two package ways, : 1. It is packed 1000KG per bag with the inner lining of aluminum foil material, outer lining of PE woven material. 2. It is packed 25KG per bag with inner lining of aluminum foil material , outer lining of kraft paper material.

Transportation: The product should not be exposed to get wet or humidity during transportation, and keep it dry, clean, complete and pollution-free.

Storage: The product is stored in a clean, cool, dry and ventilated warehouse away from the source of fire. If the product is found to be damped in rainy reason or with high moisture in the air, It can be used three hour later after it is dried at the temperature of 100-120℃.