LFT-G®

长纤（厦门）新材料科技有限公司
Xiamen LFT Composite Plastic Co.,Ltd

LFT-G® PA6-BC05A

产品信息 Information

树脂类型 Resin type：	• 尼龙6 PA6
纤维类型 Fiber type：	• 长碳纤 Long Carbon Fiber
纤维含量 Fiber content：	• 50%
颜色 Color：	• 黑色 Black
材料特性 Material properties：	• 注塑级,机械性能良好 Injection molding,good mechanical properties

其他性能 Others

密度	Specific gravity	1.32	g/cm^3	ASTM D-792
成型收缩率	Molding shrinkage	0.1～0.3	%	ASTM D-955

机械性能 Mechanical

拉伸强度	303	MPa	ISO：527
Tensile strength	302	MPa	ASTM D-638
拉伸模量	34891	MPa	ISO：527
Tensile modulus	34585	MPa	ASTM D-638
断裂伸长率	0.7-1.5	%	ISO：527
Tensile elongation	0.7-1.5	%	ASTM D-638
弯曲强度	403	MPa	GB/T 9341
Flexural strength	401	MPa	ASTM D-790
弯曲模量	23885	MPa	GB/T 9341
Flexural modulus	24058	MPa	ASTM D-790
悬臂梁缺口冲击强度 Notched Izod impact	315	J/m	ASTM D-256
悬臂梁缺口冲击强度 Notched Izod impact	34	KJ/m^2	ISO：179
简支梁缺口冲击强度 Notched Charpy impact	32	KJ/m^2	ISO：180

热性能 Thermal performance

热变形温度 HDT(1.8MPa)	208 ℃	ISO：75-2

阻燃性能 Flame retardant

阻燃性 Flame retardant	HB@1.5 mm	UL-94

加工参数 Processing parameters

注塑压力 Injection pressure	69~124 MPa
熔体温度[1] Melt temperature	243~270 °C
模具温度[2] Mould temperature	54~95 ° C
干燥[3] Pre-drying	2~4 hrs @85~100 ° C
干燥含水量[4] Dry water content	＜0.05 %

工艺注意事项 Processing Notes

Values presented in this Property Data Sheet are based on limited laboratory test specimens. These values are typical values only and are not intended to be used as specification limits (maximum or minimum values). It is the sole responsibility of the end user to determine the suitability of the material for their intended application. The user must ensure that the material, as processed, meets the requirements of their specific product or use.To the best of our knowledge, the information contained in this publication is accurate and reliable. However, LFT-G® assumes no liability whatsoever for the accuracy or completeness of this information.

Note: [1] The melt temperature refers to the actual measured melt temperature inside the barrel. Customers should evaluate the deviation between the machine set temperature and the actual measured temperature to avoid material degradation or carbonization caused by overheating. [2] The mold temperature refers to the actual measured mold temperature rather than the set temperature. Since mold temperature affects the appearance and dimensional stability of the product, it should be evaluated based on specific product requirements. [3] It is recommended to use a dehumidifying dryer. Customers should determine the appropriate drying temperature and time within the suggested range according to their drying equipment, to achieve the required moisture content for processing. [4] Prior to injection molding, it is recommended to dry the material to a moisture content below 0.1% to prevent material degradation during processing.

该属性数据表中包含的值是基于有限的实验室测试样品得出的。 这些值是典型值，并非旨在出于规格目的设置最大值或最小值。 确定该属性数据表中显示的材料是否适合最终用户的使用是用户的全部责任，用户必须确保自己随后加工的材料满足其特定产品或用途的需求。 据我们所知，本出版物中的信息准确可靠，LFT-G®对本信息的准确性不承担任何责任。

备注：【1】该熔体温度是炮筒内熔体的实测温度，客户需自行评估机台炮筒设定温度与实测温度之间的偏差，避免因过热引起材料碳化裂解；【2】该处模温是指实测模具温度而非设定模具温度。因模温涉及到产品外观和尺寸稳定性，请客户根据产品要求自行评估；【3】推荐使用除湿干燥机进行干燥，请客户根据自己的烘料设备状况在建议的参考范围内自行评估实际的烘料温度和时间，以期达到符合生产所要求的水分含量；【4】注塑成型前，建议把产品水分含量烘烤至 0.1%以下，防止注塑成型时材料降解。

材料简介 Introduction

LFT-G® is a long fiber reinforced thermoplastic material designed for injection molding, compression molding, and extrusion applications. Retention of fiber length in the finished part is critical to achieving optimal mechanical performance. Fiber length can be preserved through proper processing conditions, including the use of free-flow check valves, optimized metering screw designs, and comprehensive mold design evaluation to minimize shear and ensure smooth material flow while maintaining the critical fiber length. The fiberglass within each pellet is continuous, enabling outstanding mechanical properties and performance when processed correctly.

LFT-G 是长纤维增强热塑性材料，生产的产品适用于注塑，压缩和挤出成型的应用。成品中的纤维长度被部分保留是关键。适当的时候使用止回阀门，完整的评估螺杆和模具，为了减少高剪切，保持纤维长度可以适应填充的材料零件。粒料中的玻璃纤维是连续的，脱模时可以提供优异的材料性能 。

模具 Injection mould general processing

For optimal processing, full-round runners with a minimum diameter of 5–6 mm are recommended to ensure smooth material flow. Gate sizes should be as large as possible and no strict upper limit. Sprues should be kept as short as possible and designed with a gradual taper toward the gate. Large sprues and straight (direct) gates are recommended, while restrictive or pinpoint gates should be avoided to minimize shear and preserve fiber length. Recycled material could be added during processing; however, it is recommended not to exceed 5% to reduce the risk of property degradation. Prior to machine shutdown, the injection molding machine should be

purged with PE or PP, and long glass fiber materials should not be left in the barrel or tooling for extended periods. A metering screw is recommended for proper plasticizing and conveying of the material, with a feeding level of approximately 40% and a screw L/D ratio between 18:1 and 24:1. For improved molding performance, it is recommended to use injection molding machines with a clamping force above 100 tons, along with a large open nozzle to reduce shear.

使用最小直径在 5-6MM 的圆形流道改变物流流动；允许浇口尺寸没有最大上限;缩短浇道，逐渐缩小；使用大水口，直胶口，不能点胶；浇口/流道;浇口最小约 5mm 成型过程中如果将再生料添加到 LFT-G 中，添加范围不能超过 5%,因为会降低或减少成型部件的性能。关闭注塑机之前，先用聚乙烯或聚丙烯冲洗。长玻纤制品不要留在进料筒中。使用螺杆将材料塑化并输送到模腔中。40%下料,18:1/24:1 比率;模具吨位最少 100 吨,使用大口径喷嘴以便降低剪切力.

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Availability：Global