



浙石化

浙江石油化工有限公司
Zhejiang Petroleum & Chemical Co., Ltd.
产品合格证

Product Qualification Certificate



产品名称: 聚碳酸酯/PC
Product name
规格/牌号: G1011-F
Specification/Number
采样地点: 1217T5750A
Sampling sites
产品批号: 20240922PC110197
Batch number
样品状态: 固体/Solid
Sample state
生产日期: 22/9/2024
Production date

执行标准: Q/ZPC 029-2024 客户满意度
Standards
记录编号: ZPC-HY-JL-CP-001.86
Record number
样品编号: YPWT2409221287
Sample number
产品批量: 284.05T
Product batch
抽样量: 15.00kg
Sample weight
签发日期: 24/9/2024
Date of issue

检测项目, 单位 TEST ITEMS, UNIT	质量指标 LIMITS	检测结果 RESULTS	试验方法 TEST METHOD
焦粒及异色粒子, 个/kg scorched granule&Color granule , pcs/kg	≤5	1	Q/ZPC HY07-011J-2024
熔体质量流动速率 (1.2kg, 300℃), g/10min Melt mass-flow rate	8.0-15.0	9.42	GB/T 3682.1-2018
拉伸屈服应力, MPa Tensile stress at yield	报告 Report	62.4	GB/T 1040.2-2022
拉伸断裂伸长率, % Tensile strain at break	报告 Report	112	GB/T 1040.2-2022
弯曲模量, MPa Flexural modulus	报告 Report	2256	GB/T 9341-2008
悬臂梁缺口冲击强度 (23℃), kJ/m² Izod notched impact strength	≥50	68	GB/T 1843-2008
负荷变形温度 (Tf1.8), °C Temperature of deflection under load	报告 Report	126	GB/T 1634.2-2019
透光率 (1mm注塑片), % Luminous transmittance	≥80	89.3	GB/T 2410-2008
CIE-b*颜色 CIE-b*	≤0	-2.8	Q/ZPC HY07-007J-2024

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判定结论: Conclusion 	 检查员 Inspector: 杨汝亭	审核人: 蔡登定 Supervisor
		批准人: 张文良 Approver

地址: 浙江省舟山市岱山县鱼山岛新时代大道 Add Xinshidai Avenue, Yushan Island, Daishan, Zhoushan, Zhejiang, China
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备注NOTES: 牙签粒: 0.8g/kg;



聚碳酸酯 (Polycarbonate)

产品简介:

聚碳酸酯 (简称 PC) 是指分子链中含有碳酸酯基 ($-\text{COO}-$) 的非结晶型热塑性高分子聚合物。是一种综合性能非常优异的热塑性工程塑料, 其在力学、光学及热性能上的优异表现使其同时具有高抗冲、高透明、高耐热三大特性, 属于耐用型工程塑料。

Polycarbonate (abbreviated as PC) refers to a non-crystalline thermoplastic high molecular polymer containing a carbonate group ($-\text{COO}-$) in a molecular chain. It is a thermoplastic engineering plastic with excellent comprehensive performance. Its excellent performance in mechanical, optical and thermal properties makes it have three characteristics of high impact resistance, high transparency and high heat resistance. It is a durable engineering plastic.

产品特性:

(1) 产品兼具透明、强韧、耐热、阻燃四大综合特性;

The product has four comprehensive characteristics of transparency, toughness, heat resistance and flame retardancy.

(2) 使用温度范围广, 在 $-100^{\circ}\text{C} \sim 129^{\circ}\text{C}$ 的温度范围内仍可保持稳定的性能;

Wide temperature range, stable performance over the temperature range of $-100^{\circ}\text{C} \sim 129^{\circ}\text{C}$

(3) 热变形温度高; High heat reflection temperature.

(4) 成型收缩率低, 尺寸稳定性良好;

Low molding shrinkage and good dimensional stability

(5) 电气特性优良 Excellent electrical characteristics

装置情况:

浙石化 PC 装置采用绿色环保、国际先进的非光气法工艺技术, 可生产熔融指数 5-35 范围内的 PC 产品。PC 总规划产能 52 万吨/年, 分两期建设, 一期装置设计产能 26 万吨/年, 上游同期配套 24 万吨/年的双酚 A (BPA), 64 万吨/年苯酚/丙酮以及 20 万吨/年的碳酸二甲酯 (DMC) 装置。

Zhejiang Petrochemical PC plant adopts green environmental protection and international advanced non-phosgene process technology to produce PC products with a melt index of 5-35. The total planned capacity of PC is 520,000 tons/year, which is constructed in two phases. The design capacity of the first phase is 260,000 tons/year, with the supporting upstream 240,000 tons/year of bisphenol A (BPA), 640,000 tons/year of phenol/acetone. And a 200,000 tons/year dimethyl carbonate (DMC) unit.

主要用途 (Application) :

作为一种综合性能优异的热塑性工程塑料, 浙石化聚碳酸酯产品主要可应用于光学照明、电子电气、汽车、建筑、包装等领域, 同时可与其他树脂制成塑料合金, 以满足特定领域需求。

As a thermoplastic engineering plastic with excellent comprehensive performance, ZPC polycarbonate products can be mainly used in optical lighting, electrical and electronic, automotive, construction, packaging, etc., and can be made into plastic alloys with other resins to meet specific needs.



ZPC® POLYCARBONATE RESIN G1011-F

TYPICAL PROPERTIES VALUES

项目	检测标准	合格品指标
焦粒及异色粒子, 个/KG scorched granule&Color granule ,pcs/kg	Q/ZPC HY07-011J-2024	≤5
密度 Density	ASTM D1505	≤1.2
CIE-b*颜色 CIE-b*	Q/ZPC HY07-007J-2024	≤0
透光率(1mm 注塑片), % Luminous Transmittance	ASTM D1003	≥80
熔体质量流动速率 (1.2kg,300°C),g/10min Melt mass-flow rate	GB/T 3682.1-2018	8.0~15.0
缺口冲击强度, kJ/m ² Notched impact strength, kJ/m ²	ISO 180A	≥50
拉伸强度, Mpa Tensile strength, Mpa	ASTM D638	Refer to the report
断裂伸长率, % Elongation at break, %	ISO 527-1-2	Refer to the report
屈服弯曲强度, Mpa Flexural strength, Mpa	ASTM D790	Refer to the report
热变形温度, °C Heat deflection temperature, °C	ASTM D648,0.455Mpa	Refer to the report
阻燃性能 Flame resistance	UL94@3.0mm	V2