

# Crastin® PC164 NC010

## THERMOPLASTIC POLYESTER RESIN

Crastin® PC164 NC010 (Complete Data)是一种未增强 PBT

### 总说明

树脂鉴别	PBT	ISO 1043
制品标识码	>PBT<	ISO 11469

### 流变性能

熔体质量流动速率	33 g/10min	ISO 1133
熔体质量流率, 温度	250 °C	ISO 1133
熔体质量流率, 载荷	2.16 kg	ISO 1133
模塑收缩率, 平行	1.6 %	ISO 294-4, 2577
模塑收缩率, 垂直	1.6 %	ISO 294-4, 2577

### 机械性能

拉伸模量	2400 MPa	ISO 527-1/-2
屈服应力	55 MPa	ISO 527-1/-2
屈服伸长率	4 %	ISO 527-1/-2
名义断裂伸长率	30 %	ISO 527-1/-2
拉伸蠕变模量, 1h	2600 <sup>[OT]</sup> MPa	ISO 899-1
拉伸蠕变模量, 1000h	1800 <sup>[OT]</sup> MPa	ISO 899-1
简支梁无缺口冲击强度, +23°C	N kJ/m <sup>2</sup>	ISO 179/1eU
简支梁缺口冲击强度, +23°C	4 kJ/m <sup>2</sup>	ISO 179/1eA
简支梁缺口冲击强度, -30°C	4 kJ/m <sup>2</sup>	ISO 179/1eA
Poisson's ratio	0.38 -	

[OT]: One time tested

### 热性能

熔融温度, 10°C/min	225 °C	ISO 11357-1/-3
玻璃化转变温度, 10°C/min	55 °C	ISO 11357-1/-2
热变形温度, 1.80 MPa	50 °C	ISO 75-1/-2
热变形温度	60 °C	ISO 75-1/-2
热变形温度, 0.45 MPa	115 °C	ISO 75-1/-2
热变形温度	180 °C	ISO 75-1/-2
维卡软化温度, 50°C/h 10N	175 °C	ISO 306
线膨胀系数, 平行	110 E-6/K	ISO 11359-1/-2
线膨胀系数, 垂直	120 E-6/K	ISO 11359-1/-2
熔体	0.21 W/(m K)	
熔体的比热	2110 J/(kg K)	

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### 燃烧性能

1.5mm名义厚度时的燃烧性	HB class	IEC 60695-11-10
测试用试样的厚度	1.5 mm	IEC 60695-11-10
燃烧性 - 氧指数	22 %	ISO 4589-1/-2

### 电性能

相对介电常数, 1MHz	3.2 -	IEC 62631-2-1
介质损耗因子, 100Hz	20 E-4	IEC 62631-2-1
介质损耗因子, 1MHz	200 E-4	IEC 62631-2-1
体积电阻率	>1E13 Ohm.m	IEC 62631-3-1
表面电阻率	1E12 Ohm	IEC 62631-3-2
介电强度	26 kV/mm	IEC 60243-1

### 其它性能

吸湿性, 2mm	0.2 %	类似ISO 62
吸水性, 2mm	0.4 %	类似ISO 62
密度	1310 kg/m <sup>3</sup>	ISO 1183
熔体密度	1110 kg/m <sup>3</sup>	

### 注塑

建议干燥	是
干燥温度	120 °C
干燥时间, 除湿干燥机	2 - 4 h
加工前水分含量	≤ 0.04 %
优良熔体温度	250 °C
注塑 熔体温度	240 °C
注塑 熔体温度	260 °C
优良模具温度	80 °C
模具温度	30 °C
模具温度	130 °C
保压范围	≥ 60 MPa
保压时间	4 s/mm
背压	As low as MPa possible
喷射温度	170 °C

### 耐化学性

#### 酸类

- ✓ 醋酸 (5g/100g), 23°C
- ✓ 柠檬酸溶液 (10g/100g), 23°C
- ✓ 乳酸 (10g/100g), 23°C
- ✗ 盐酸 (36g/100g), 23°C
- ✗ 硝酸 (40g/100g), 23°C

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- ✗ 硫酸 (38g/100g), 23°C
- ✗ 硫酸 (5g/100g), 23°C
- ✗ 铬酸溶液 (40g/100g), 23°C

### 碱类

- ✗ 氢氧化钠溶液 (35g/100g), 23°C
- ✓ 氢氧化钠溶液 (1g/100g), 23°C
- ✓ 氨水(氢氧化铵) (10g/100g), 23°C

### 醇类

- ✓ 异丙醇, 23°C
- ✓ 甲醇, 23°C
- ✓ 乙醇, 23°C

### 碳氢化合物

- ✓ n-乙烷, 23°C
- ✓ 甲苯, 23°C
- ✓ 异辛烷, 23°C

### 酮类

- ✓ 丙酮, 23°C

### 醚类

- ✓ (二)乙醚, 23°C

### 矿物油

- ✓ SAE 10W40号多效润滑油, 23°C
- ✗ SAE 10W40号多效润滑油, 130°C
- ✗ SAE 89/90号变速箱润滑油, 130°C
- ✓ 绝缘油, 23°C

### 标准燃油

- ✗ ISO 1817 燃油1号, 60°C
- ✗ ISO 1817 燃油2号, 60°C
- ✗ ISO 1817 燃油3号, 60°C
- ✗ ISO 1817 燃油4号, 60°C
- ✓ 不含酒精的标准燃油(优先使用C类ISO 1817 燃油), 23°C
- ✓ 含酒精的标准燃油(优先使用4号ISO 1817 燃油), 23°C
- ✓ 柴油(优先使用F类ISO 1817液体), 23°C
- ✓ 柴油(优先使用F类ISO 1817液体), 90°C
- ✗ 柴油(优先使用F类ISO 1817液体), >90°C

### 盐溶液

- ✓ 氯化钠溶液(10g/100g), 23°C
- ✓ 次氯化钠溶液 (10g/100g), 23°C
- ✓ 碳酸钠溶液 (20g/100g), 23°C
- ✓ 碳酸钠溶液 (2g/100g), 23°C
- ✓ 氯化锌溶液 (50g/100g), 23°C

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### 其它

- ✓ 乙酸乙酯, 23°C
- ✗ 过氧化氢, 23°C
- ✗ DOT4号刹车油, 130°C
- ✗ 乙二醇水溶液 (50g/100g), 108°C
- ✓ 1g/100g 基苯氧-聚环氧乙烷乙烯水溶液, 23°C
- ✓ 油酸 (50g/100g) + 橄榄油 (50g/100g), 23°C
- ✓ 水, 23°C
- ✗ 去离子水, 90°C
- ✓ 酚溶液(5g/100g), 23°C

### 抑菌方法

- ✓ 环氧乙烷

### Symbols used:

- ✓ possibly resistant  
Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).
- ✗ not recommended - see explanation  
Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

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