

Crastin® FR1301TC BK350 (PRELIMINARY)

THERMOPLASTIC POLYESTER RESIN

Crastin® FR1301TC BK350是一种导热, 阻燃, PBT

总说明

树脂鉴别	PBT-I-CD40FR(17)	ISO 1043
制品标识码	>PBT-I-CD40FR(17)<	ISO 11469

流变性能

模塑收缩率, 平行	0.5 %	ISO 294-4, 2577
模塑收缩率, 垂直	0.4 %	ISO 294-4, 2577

机械性能

拉伸模量	7100 MPa	ISO 527-1/-2
断裂应力	39 MPa	ISO 527-1/-2
断裂伸长率	1 %	ISO 527-1/-2
弯曲模量	8300 MPa	ISO 178
弯曲强度	57 MPa	ISO 178
简支梁无缺口冲击强度, +23°C	7.9 kJ/m ²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	2.4 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.35 -	

热性能

玻璃化转变温度, 10°C/min	55 °C	ISO 11357-1/-2
热变形温度, 1.80 MPa	127 °C	ISO 75-1/-2
热变形温度, 0.45 MPa	197 °C	ISO 75-1/-2
线膨胀系数, 平行	18 E-6/K	ISO 11359-1/-2
线膨胀系数, 垂直	28 E-6/K	ISO 11359-1/-2
面内导热系数	10 W/(m K)	ASTM E 1461
层间导热系数	1 W/(m K)	ASTM E 1461
Thermal conductivity, thickness tested	0.3 ^[1] mm	ASTM E 1461

[1]: Thermal conductivity specimen prepared by hot-press method

燃烧性能

1.5mm名义厚度时的燃烧性	V-0 class	IEC 60695-11-10
测试用试样的厚度	1.5 mm	IEC 60695-11-10
灼热丝燃烧指数, 0.75mm	960 °C	IEC 60695-2-12
灼热丝燃烧指数, 1.5mm	960 °C	IEC 60695-2-12
灼热丝燃烧指数, 3mm	960 °C	IEC 60695-2-12
灼热丝起燃温度, 0.75mm	675 °C	IEC 60695-2-13
灼热丝起燃温度, 1.5mm	675 °C	IEC 60695-2-13
灼热丝起燃温度, 3mm	750 °C	IEC 60695-2-13



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电性能

体积电阻率	1000000 ^[2] Ohm.m	IEC 62631-3-1
[2]: tested at 2mm thickness and 10V		

其它性能

密度	1670 kg/m ³	ISO 1183
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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 %
回料用量	15 %
熔体温度	275 °C
注塑 熔体温度	260 °C
注塑 熔体温度	290 °C
模具温度	110 °C
模具温度	100 °C
模具温度	120 °C
保压范围	≥ 60 MPa
保压时间	3 s/mm
背压	As low as possible MPa
喷射温度	170 °C

典型数据

添加剂	阻燃剂
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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
- ✗ 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

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- ✓ 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
- ✗ 滑油OS206 304 Ref.Eng.Oil, ISP, 135°C
- ✗ 自动准双曲面齿轮油壳牌壳牌Donax, 135°C
- ✗ 水力油Pentosin CHF 202, 125°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
- ✓ 柴油EN590, 100°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

其它

- ✓ 乙酸乙酯, 23°C
- ✗ 过氧化氢, 23°C
- ✗ DOT4号刹车油, 130°C



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- ✗ 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
- ✗ 冷却Glysantin G48 , 1:1水环境, 125°C

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).

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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