



Crastin® SK642FR BK851

THERMOPLASTIC POLYESTER RESIN

Crastin®热塑性聚酯的共性包括良好的机械性能和物理性能比如刚性和韧性、耐热、耐摩擦和耐磨耗、优异的表面性能和良好的着色性能。Crastin®热塑性聚酯具有优异的电绝缘特性，可制备耐高电弧规格。许多阻燃规格获得UL认证 (V-0)。Crastin®热塑性聚酯通常具有很高的耐化学和耐热老化性能。Crastin®热塑性聚酯良好的热稳定性能通常使正确处理的生产废弃物回收成为可能。如果不能回收使用，杜邦建议的优先选择是在合适的装置中焚烧进行能量回收（基体树脂24kJ/g）。废弃处理需遵守当地法规。

Crastin®热塑性聚酯通常应用于有苛刻要求的电子电气、汽车、机械工程、化学、家用电气和运动器材领域。

Crastin® SK642FR BK851是一种15% 玻纤增强, 阻燃, PBT

总说明

树脂鉴别	PBT-GF15FR(17)	ISO 1043
制品标识码	>PBT-GF15FR(17)<	ISO 11469

流变性能

粘度	110 cm ³ /g	ISO 307, 1157, 1628
模塑收缩率, 平行	0.7 %	ISO 294-4, 2577
模塑收缩率, 垂直	1.2 %	ISO 294-4, 2577

机械性能

拉伸模量	7200 MPa	ISO 527-1/-2
断裂应力	100 MPa	ISO 527-1/-2
断裂伸长率	3.4 %	ISO 527-1/-2
弯曲强度	155 MPa	ISO 178
简支梁无缺口冲击强度, +23°C	53 kJ/m ²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	7.4 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.35 -	

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	203 °C	ISO 75-1/-2
热变形温度, 0.45 MPa	218 °C	ISO 75-1/-2
相对温度指数, 电气性能, 0.75mm	140 °C	UL 746B
相对温度指数, 电气性能, 1.5mm	140 °C	UL 746B
相对温度指数, 电气性能, 3mm	140 °C	UL 746B
相对温度指数, 电气性能, 6mm	140 °C	UL 746B
相对温度指数, 冲击, 0.75mm	130 °C	UL 746B
相对温度指数, 冲击, 1.5mm	130 °C	UL 746B
相对温度指数, 冲击, 3mm	130 °C	UL 746B
相对温度指数, 冲击, 6mm	130 °C	UL 746B
相对温度指数, 强度, 0.75mm	140 °C	UL 746B

Crastin® SK642FR BK851

THERMOPLASTIC POLYESTER RESIN

相对温度指数, 强度, 1.5mm	140 °C	UL 746B
相对温度指数, 强度, 3mm	140 °C	UL 746B
相对温度指数, 强度, 6mm	140 °C	UL 746B

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
UL注册	yes -	UL 94
厚度为h时的燃烧性	V-0 class	IEC 60695-11-10
测试用试样的厚度	0.75 mm	IEC 60695-11-10
UL注册	yes -	UL 94
厚度为h时的5V燃烧性	5VA class	IEC 60695-11-20
测试用试样的厚度	1.5 mm	IEC 60695-11-20
UL注册	yes -	UL 94
燃烧性 - 氧指数	32 %	ISO 4589-1/-2
灼热丝燃烧指数, 3mm	960 °C	IEC 60695-2-12
灼热丝起燃温度, 3mm	775 °C	IEC 60695-2-13
FMVSS Class	DNI -	ISO 3795 (FMVSS 302)

电性能

相对介电常数., 100Hz	4.2 -	IEC 62631-2-1
相对介电常数., 1MHz	3.9 -	IEC 62631-2-1
介质损耗因子, 100Hz	19.6 E-4	IEC 62631-2-1
介质损耗因子, 1MHz	171 E-4	IEC 62631-2-1
体积电阻率	>1E13 Ohm.m	IEC 62631-3-1
表面电阻率	1E14 Ohm	IEC 62631-3-2
介电强度	32 kV/mm	IEC 60243-1
相对漏电起痕指数	200 -	IEC 60112

其它性能

密度	1580 kg/m ³	ISO 1183
----	------------------------	----------

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

Crastin® SK642FR BK851

THERMOPLASTIC POLYESTER RESIN

保压时间	3 s/mm
背压	As low as MPa possible
喷射温度	170 °C

典型数据

添加剂	阻燃剂
-----	-----

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
- ✓ 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

Crastin® SK642FR BK851

THERMOPLASTIC POLYESTER RESIN

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

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

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 information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

CAUTION: Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract or other acknowledgement that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.