

TECHNYL® A 50H1 NATURAL

聚酰胺 66

Technyl Suppliers

PROSPECTOR®

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Technical Data

产品说明

TECHNYL® A 50H1 Natural is an unreinforced polyamide 66 based on a non-phosphorous and non-halogenated flame retardant system, heat stabilized, for injection moulding. This flame retardant grade, offers excellent filling qualities combined with good stiffness.

总览

| | |
|--------------------|---|
| 材料状态 | • 已商用：当前有效 |
| 资料 ¹ | • Technical Datasheet |
| UL 黄卡 ² | • E44716-100890200 • E44716-468972 |
| 搜索 UL 黄卡 | • Technyl Suppliers • TECHNYL® |
| 供货地区 | • 欧洲 |
| 添加剂 | • 热稳定剂 • 阻燃性 |
| 特性 | • 磷含量，低（到无） • 脱模性能良好 • 无卤 |
| 用途 | • 电气/电子应用领域 • 连接器 |
| 机构评级 | • EC 1907/2006 (REACH) • EN 45545 • UL QMFZ2 |
| RoHS 合规性 | • RoHS 合规 |
| 外观 | • 黑色 • 自然色 |
| 形式 | • 粒子 |
| 加工方法 | • 注射成型 |
| 多点数据 | • Isothermal Stress vs. Strain (ISO 11403-1) |
| 树脂 ID (ISO 1043) | • PA66 FR(30) |

| 物理性能 | 干燥 | 调节后的 | 单位制 | 测试方法 |
|------------------|------|-------|-------------------|--------------|
| 密度 | 1.16 | -- | g/cm ³ | ISO 1183/A |
| 收缩率 | | | | ISO 294-4 |
| 垂直 | 1.0 | -- | % | |
| 流动 | 1.1 | -- | % | |
| 吸水率 | | | | ISO 62 |
| 24 hr, 23°C | 0.88 | -- | % | |
| 平衡, 23°C, 50% RH | 2.7 | -- | % | |
| 室外适用性 | f1 | -- | | UL 746C |
| 机械性能 | 干燥 | 调节后的 | 单位制 | 测试方法 |
| 拉伸模量 (23°C) | 3800 | 1700 | MPa | ISO 527-2/1A |
| 拉伸应力 | | | | ISO 527-2/1A |
| 屈服, 23°C | 85.0 | 55.0 | MPa | |
| 断裂, 23°C | 80.0 | 45.0 | MPa | |
| 拉伸应变 (断裂, 23°C) | 12 | > 100 | % | ISO 527-2 |
| 弯曲模量 | | | | |
| 23°C | 3800 | 1750 | MPa | ASTM D790 |
| 23°C | 3700 | 1700 | MPa | ISO 178 |
| 弯曲强度 | | | | |
| 23°C | 125 | 55.0 | MPa | ASTM D790 |
| 23°C | 135 | 60.0 | MPa | ISO 178 |



| 冲击性能 | 干燥 | 调节后的 | 单位制 | 测试方法 |
|----------------------------------|----------------------|---------|-------------------|----------------|
| 简支梁缺口冲击强度 | | | | ISO 179/1eA |
| -30°C | 3.0 | -- | kJ/m ² | |
| 23°C | 3.2 | 7.0 | kJ/m ² | |
| 简支梁无缺口冲击强度 | | | | ISO 179/1eU |
| -30°C | 90 | -- | kJ/m ² | |
| 23°C | 80 kJ/m ² | 无断裂 | | |
| 悬壁梁缺口冲击强度 | | | | ASTM D256 |
| 23°C | 50 | -- | J/m | |
| 23°C | 3.0 | -- | kJ/m ² | ISO 180 |
| 热性能 | 干燥 | 调节后的 | 单位制 | 测试方法 |
| 热变形温度 | | | | |
| 0.45 MPa, 未退火 | 237 | -- | °C | ISO 75-2/Bf |
| 1.8 MPa, 未退火 | 85.0 | -- | °C | ISO 75-2/Af |
| 熔融温度 | 263 | -- | °C | ISO 11357-3 |
| 电气性能 | 干燥 | 调节后的 | 单位制 | 测试方法 |
| 表面电阻率 | 3.0E+15 | 1.0E+14 | ohms | IEC 60093 |
| 体积电阻率 | 3.0E+15 | 1.0E+12 | ohms-cm | IEC 60093 |
| 介电强度 | | | | IEC 60243-1 |
| 0.800 mm | 33 | -- | kV/mm | |
| 2.00 mm | 21 | -- | kV/mm | |
| 相对电容率 | 3.50 | -- | | IEC 60250 |
| 耗散因数 | 0.017 | -- | | IEC 60250 |
| 漏电起痕指数 (解决方案 A) | 600 | -- | V | IEC 60112 |
| 可燃性 | 干燥 | 调节后的 | 单位制 | 测试方法 |
| UL 阻燃等级 | | | | UL 94 |
| 0.40 mm | V-0 | -- | | |
| 0.8 mm | V-0 | -- | | |
| 1.6 mm | V-0 | -- | | |
| 3.2 mm | V-0 | -- | | |
| 灼热丝易燃指数 | | | | IEC 60695-2-12 |
| 0.8 mm | 960 | -- | °C | |
| 1.6 mm | 960 | -- | °C | |
| 3.2 mm | 960 | -- | °C | |
| 热灯丝点火温度 | | | | IEC 60695-2-13 |
| 0.40 mm | 960 | -- | °C | |
| 0.8 mm | 960 | -- | °C | |
| 1.6 mm | 775 | -- | °C | |
| 极限氧指数 | 33 | -- | % | ISO 4589-2 |
| 补充信息 | 干燥 | 调节后的 | 单位制 | 测试方法 |
| European Railways Certifications | | | | EN 45545-2 |
| R22 | HL3 | -- | | |
| R23 | HL3 | -- | | |
| 注射 | 干燥 单位制 | | | |
| 干燥温度 | 80 °C | | | |
| 建议的最大水分含量 | 0.20 % | | | |
| 料筒后部温度 | 260 到 270 °C | | | |
| 料筒中部温度 | 265 到 275 °C | | | |
| 料筒前部温度 | 265 到 275 °C | | | |
| 模具温度 | 60 到 80 °C | | | |



注射说明

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point mini -20°C. Recommended time 2-4h

Injection Advice:

- All reinforced, flame retardant compounds generate some level of abrasion/corrosion to the steel processing equipment. These issues may be magnified by using incorrect processing conditions (temperatures, residence time, moisture level ...) during the moulding process. Therefore, the TECHNYL® manufacturers recommend you adhere to the processing conditions detailed in this technical data sheet. For equipment that comes into contact with molten flame retardant compounds, the TECHNYL® manufacturers advise you to use a steel with high chromium and high carbon content (having a minimum concentration of 16% Chromium) to prevent corrosion and abrasion. For the correct reference of steel associated to flame retardant compounds' processing, please refer to your equipment manufacturers. In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.
- The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design

备注

¹ 通过这些链接您能够访问供应商资料。我们尽量保证及时更新资料；不过您可以从供应商处了解最新资料。

² UL 黄卡含有 UL 验证的易燃性和电气特性。UL Prospector 持续努力在 Prospector 中将黄卡链接至单个塑料材料，然而此列表可能未包括所有相应链接。重要的是，我们对 Prospector 中找到的这些黄卡和塑料材料之间的关联进行验证。如需完整的黄卡列表，请访问 UL 黄卡搜索。

³ 一般属性：这些不能被视为规格。



购买地点

供应商

Technyl Suppliers

Web: <http://www.technyl.com>

分销商

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