

Dawnprene TPE 4001-PA

产品介绍

本材料是热塑性弹性体中的一种，是一种较软的 TPE 材料。拥有好的物理机械性能，好的耐化学性能及弹性，主要用于注塑型制品。这个牌号的 TPE 可以像热塑性材料加工设备一样进行注塑成型。它可完全回收再利用。

Features:

A soft thermoplastic elastomer (TPE) family. This material combines good physical properties, chemical resistance and elasticity, designed for injection applications. This grade of TPE can be processed on conventional thermoplastics equipment for injection or blow molding. It is completely recyclable.

| 常规(GENERAL) | | | |
|---|------------------------------------|--------------------------|-----------------------------------|
| 应用(Application) | * 常规注塑 (general injection) | | |
| RoHS Compliance | * RoHS | | |
| 颜色(Colour) | * 黑色(Black) | | |
| 形状(Form) | * 粒子 (Pellet) | | |
| 成型方法(Processing Method) | * 注塑(injection) | | |
| 修订时期(Revision Date) | * 2021-03-09 | | |
| 物理 Physical | 典型值 Typical Value | 单位 Unit | 测试依据 Test Method |
| 密度(Density) | 1.1 | g/cm ³ | ISO 1183-1 |
| 硬度(Hardness) | | | |
| 邵氏硬度 Shore Hardness(Shore A, 10 sec, 23°C) | 40 | A | DIN 53505 |
| 力学性能(Mechanical Property) | | | |
| 100%定伸强度- 23°C 100% Steching strength-23°C | 0.75 | Mpa | DIN 53504 |
| 拉伸强度- 23°C Tensile strength- 23°C | 6.5 | Mpa | DIN 53504 |
| 断裂伸长率- 23°C Elongation at break-23°C | 800 | % | DIN 53504 |
| 压缩永久变形(Compression Set) 23°C*22hr*50% | 31 | % | PV 3307 |
| 雾化 (fogging) | 0.5 | mg | PV 3015 |
| 总碳 (total carbon) | 6 | µgC/g | PV 3341 |
| 气味 (odour) 80°C*2H*20g | 3.5 | 级 | PV 3900 |
| 甲醛 (formaldehyde) | 0.1 | mg/kg | PV 3925 |
| 阻燃性(Flammability) | | | |
| 燃烧速率(Burning Rate) | 20 | mm/min | TL 1010 |
| 老化性能(Aging Property) | | | |
| 空气中拉伸强度变化 (120°C, 94hr) Change in Tensile Strength in air(120°C, 94hr) | -7.2 | % | DIN 53508 |
| 空气中断裂伸长率变化 (120°C, 94hr) Change in Ultimate Elongation in air(120°C, 94hr) | -0.6 | % | |
| 空气中硬度变化(120°C, 94hr) Change in Shore Hardness in air(120°C, 94hr) | +3 | A | |
| 耐臭氧老化 (200PPHM, 23°C*46 小时) | 无裂纹 | — | VW2.8.1 |

| | | | |
|---------------------------------------|----------|--|--|
| Ozone Resistance (200PPHM, 23°C*46hr) | No crack | | |
|---------------------------------------|----------|--|--|

成型方法

干燥说明: 无破包不需干燥.若出现破包, 在成型之前需要对粒子进行干燥, 水分过大会导致材料外观不良、机械性能下降及制品表面外观差。水分含量要求小于 0.1%, 建议如下工艺干燥:

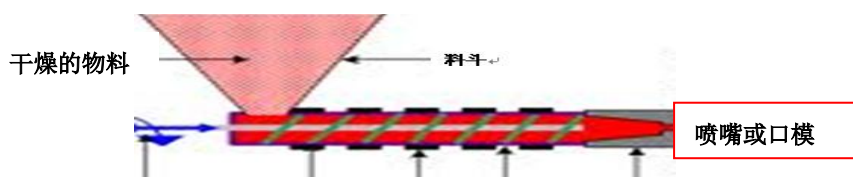
Drying Instructions: No broken bags do not need to dry ,if there is broken bags,Need drying the granules before make molding,excessive moisture will lead materials bad extrusion surface,mechanical performance reduction and bad surface appearance.

Moisture content request below 0.1%,suggesting drying as follow process:

| 干燥条件 Drying conditions | 干燥温度 Dring temperature/°C | 干燥时间 Dring time/h |
|------------------------|---------------------------|-------------------|
| 首选 first choice | 70~80 | 2~3 |
| 可选 other choice | 90 | 1 |

在 110°C 以上温度进行干燥, 可能会使材料在料筒处结块; 若使用水份分析仪, 其温度应设定在 105°C。

If drying temperature over than 110°C,it might cause materials blocking in barrel zone;if use moisture analysis meter,the temperture setting should be on 105°C.



| Screw Speed R | Zone I | Zone II | Zone III | Zone IV | Zone V | Nozzl or Die | Mould |
|---------------|---------|---------|----------|---------|---------|--------------|-------|
| 40-150 | 170-220 | 180-230 | 180-230 | 180-230 | 180-230 | 180-230 | 50-70 |

附加信息

1.Dawnprene TPE 与 PVC 等材料不相容, 因此使用前必须清理设备

Dawnprene TPE is incompatible with PVC mateials,hence must clean the equipment before using.

2.上述测试数据是采用模压试片, 尺寸为 120 mm×100 mm×2 mm,裁制而成.

Above testing data is tested by molding sample block, cutting by the sheet size is 150 mm×150 mm×2 mm .

3.压缩永久变形的压缩率为 50%。 Compression Set 50%

4. 性能为典型性能, 不作为技术指标或协议.

The properties is typical performance,is not regarding as technical index or agreement.

5.回料在使用前必须按上述操作方法执行, 并确保无杂质.

Any reprocessing must follow the above instructions,and ensure no content impurity.

6.以上工艺仅供参考, 注塑机不同工艺参数也不同, 请根据模具与制品形状具体调整

Above instructions for reference only,different equipment might have difference parameters,please adjust accordingly with different mold and product shape.

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