

**Ultraform® N2320 003 AT**  
**POM**

BASF

快速固化标准注塑等级。含脱模剂。

根据ISO 1043-1: POM的缩写名称

根据ISO 29988-POM-K,,M-GNR,3-2的名称

| 流变性能          | 数值   | 单位        | 试验方法            |
|---------------|------|-----------|-----------------|
| ISO数据         |      |           |                 |
| 熔体体积流动速度, MVR | 7.5  | cm³/10min | ISO 1133        |
| 温度            | 190  | °C        | -               |
| 载荷            | 2.16 | kg        | -               |
| 模塑收缩率, 平行     | 2.1  | %         | ISO 294-4, 2577 |
| 模塑收缩率, 垂直     | 2.0  | %         | ISO 294-4, 2577 |

| 机械性能              | 数值   | 单位    | 试验方法        |
|-------------------|------|-------|-------------|
| ISO数据             |      |       |             |
| 拉伸模量              | 2700 | MPa   | ISO 527     |
| 屈服应力              | 63   | MPa   | ISO 527     |
| 屈服伸长率             | 10.7 | %     | ISO 527     |
| 名义断裂伸长率           | 30   | %     | ISO 527     |
| 拉伸蠕变模量, 1h        | 1800 | MPa   | ISO 899-1   |
| 拉伸蠕变模量, 1000h     | 1400 | MPa   | ISO 899-1   |
| 无缺口简支梁冲击强度, +23°C | 280  | kJ/m² | ISO 179/1eU |
| 无缺口简支梁冲击强度, -30°C | 240  | kJ/m² | ISO 179/1eU |
| 简支梁缺口冲击强度, +23°C  | 6.5  | kJ/m² | ISO 179/1eA |
| 简支梁缺口冲击强度, -30°C  | 5.5  | kJ/m² | ISO 179/1eA |

| 热性能                | 数值  | 单位    | 试验方法           |
|--------------------|-----|-------|----------------|
| ISO数据              |     |       |                |
| 熔融温度, 10°C/min     | 166 | °C    | ISO 11357-1/-3 |
| 热变形温度, 1.80 MPa    | 92  | °C    | ISO 75-1/-2    |
| 热变形温度, 0.45 MPa    | 156 | °C    | ISO 75-1/-2    |
| 维卡软化温度, 50°C/h 50N | 166 | °C    | ISO 306        |
| 线性热膨胀系数, 平行        | 110 | E-6/K | ISO 11359-1/-2 |
| 1.5mm名义厚度时的燃烧性     | HB  | class | UL 94          |
| 测试用试样的厚度           | 1.6 | mm    | -              |
| UL注册               | 是的  | -     | -              |
| 厚度为h时的燃烧性          | HB  | class | UL 94          |
| 测试用试样的厚度           | 0.8 | mm    | -              |
| UL注册               | 是的  | -     | -              |
| 燃烧性 - 氧指数          | 15  | %     | ISO 4589-1/-2  |

| 电性能           | 数值   | 单位    | 试验方法          |
|---------------|------|-------|---------------|
| ISO数据         |      |       |               |
| 相对介电常数, 100Hz | 3.8  | -     | IEC 62631-2-1 |
| 相对介电常数, 1MHz  | 3.8  | -     | IEC 62631-2-1 |
| 介质损耗因子, 100Hz | 10   | E-4   | IEC 62631-2-1 |
| 介质损耗因子, 1MHz  | 50   | E-4   | IEC 62631-2-1 |
| 体积电阻率         | 1E11 | Ohm*m | IEC 62631-3-1 |
| 表面电阻率         | 1E13 | Ohm   | IEC 62631-3-2 |
| 介电强度          | 40   | kV/mm | IEC 60243-1   |
| 相对漏电起痕指数      | 600  | -     | IEC 60112     |

| 其它性能  | 数值   | 单位    | 试验方法     |
|-------|------|-------|----------|
| ISO数据 |      |       |          |
| 吸水性   | 0.9  | %     | 类似ISO 62 |
| 吸湿性   | 0.2  | %     | 类似ISO 62 |
| 密度    | 1410 | kg/m³ | ISO 1183 |

| 流变计算用参数 | 数值  | 单位 | 试验方法 |
|---------|-----|----|------|
| ISO数据   |     |    |      |
| 喷射温度    | 110 | °C | -    |

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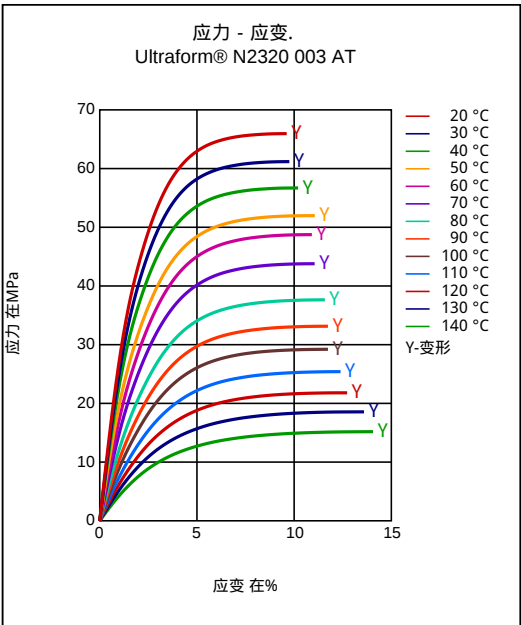
BASF

| 试样制备条件   | 数值  | 单位   | 试验方法    |
|----------|-----|------|---------|
| ISO数据    |     |      |         |
| 注塑, 熔体温度 | 200 | °C   | ISO 294 |
| 注塑, 模具温度 | 90  | °C   | ISO 294 |
| 注塑, 注射速度 | 200 | mm/s | ISO 294 |

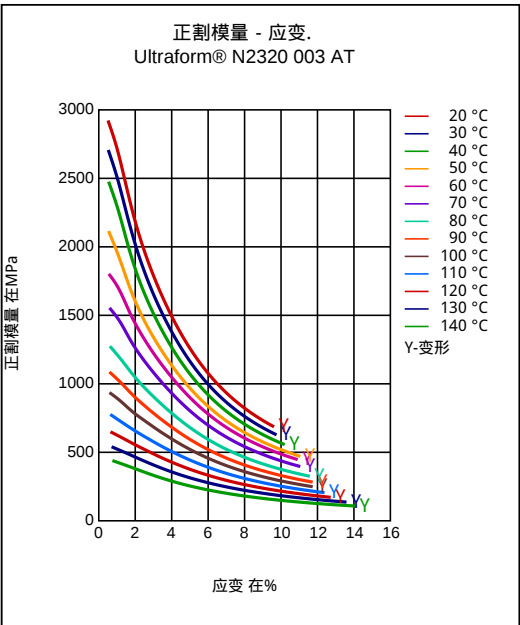
| 加工推荐 (注塑) | 数值        | 单位 | 试验方法 |
|-----------|-----------|----|------|
| 预干燥-温度    | 100       | °C | -    |
| 预干燥-时间    | 3         | h  | -    |
| 加工湿度      | ≤ 0.2     | %  | -    |
| 注塑熔体温度    | 190 - 230 | °C | -    |
| 模具温度      | 60 - 120  | °C | -    |

函数

应力 - 应变.



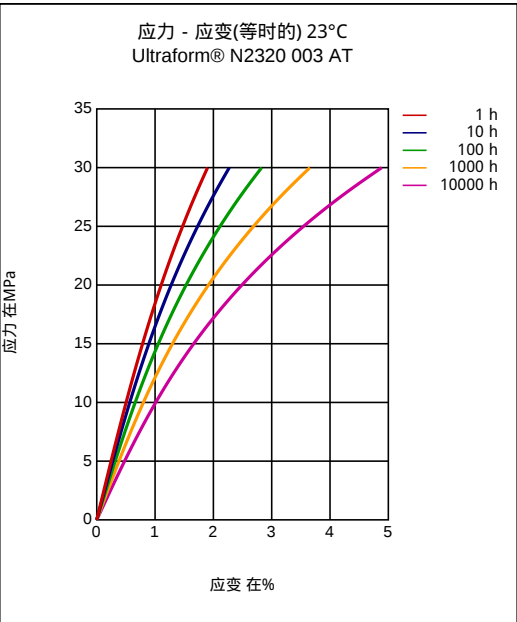
正割模量 - 应变.



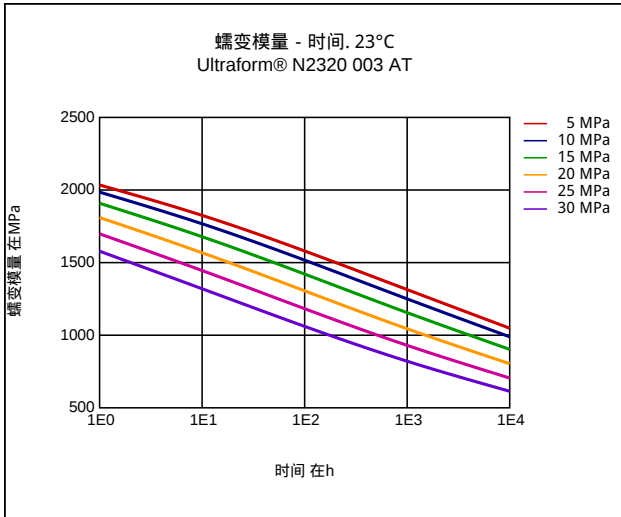
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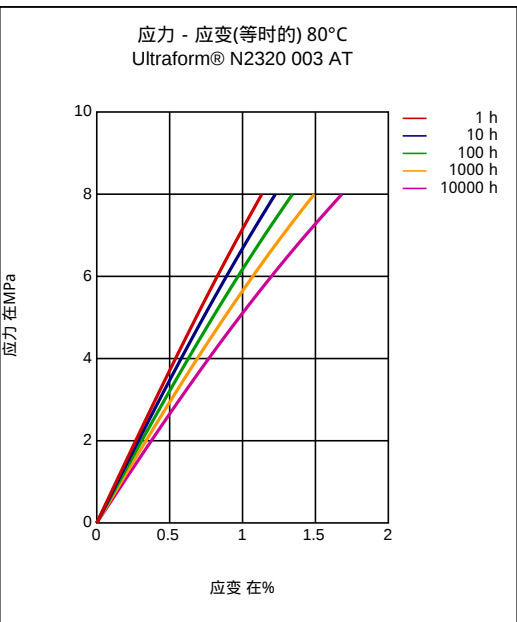
应力 - 应变(等时的) 23°C



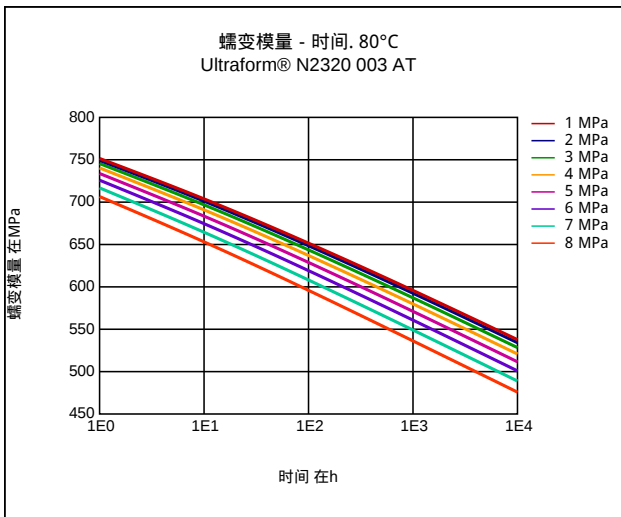
蠕变模量 - 时间, 23°C



应力 - 应变(等时的) 80°C



蠕变模量 - 时间, 80°C

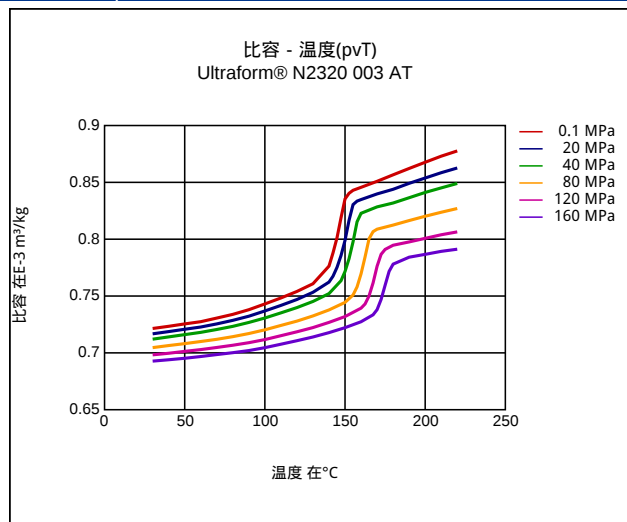


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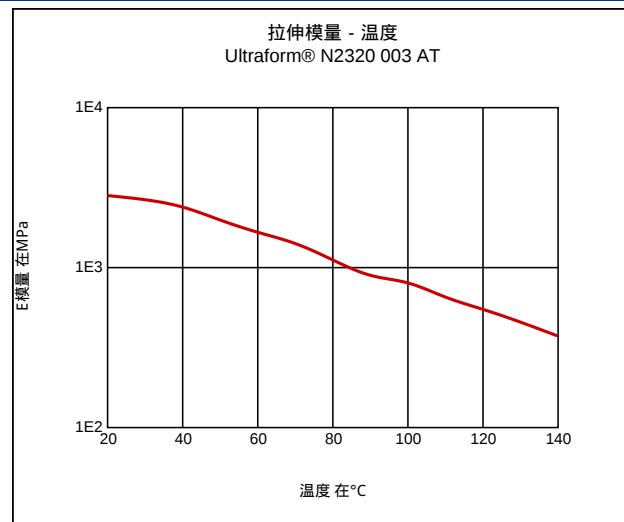
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### 比容 - 温度(pvT)



### 拉伸模量 - 温度



### 特征

#### 加工方法

注塑

#### 添加剂

脱模助剂

#### 供货形式

粒料

#### 特征

共聚物

### 注塑

#### PREPROCESSING

Pre/Post-processing, max. allowed water content: .2 %

Pre/Post-processing, Pre-drying, Temperature: 100 °C

Pre/Post-processing, Pre-drying, Time: 3 h

#### PROCESSING

injection molding, Melt temperature, range: 190 - 230 °C

injection molding, Melt temperature, recommended: 200 °C

injection molding, Mold temperature, range: 60 - 120 °C

injection molding, Mold temperature, recommended: 90 °C

injection molding, Dwell time, thermoplastics: 10 min

#### Processing

Usual single-flighted three-section screws with an effective screw length of at least 15 D, better 20 - 23 D are suitable for the injection molding of Ultraform.

#### Pretreatment

Granules or pellets in original packaging can be processed without any special pretreatment. Granules or pellets which have become moist due to prolonged or incorrect storage (e.g. by formation of condensed water) must be dried in dehumidifying or recirculating air dryers for approx. 3 hours at about 100 - 110 °C. The moisture content should not exceed 0.2 %.

#### Postprocessing

If parts were produced at a comparatively low mold temperature (e.g. in order to obtain short cycle times) and must not change their geometry in use thermal postprocessing inducing dimensional changes by postcrystallization may be necessary. In such cases parts should be stored in an oven with recirculated air at temperatures of 100 - 130 °C until dimensions don't change significantly any further. The time needed for this has to be determined experimentally.