

Typical properties of Xydar® NC-301BL

| Properties | Unit | Method (ASTM) | NC-301BL |
|--|---|---------------|----------|
| Tensile strength (3.2mmT) 抗拉强度 | MPa | D638 | 135 |
| Tensile Modules (3.2mmT) 抗张弹性率 | GPa | | 17.0 |
| Elongation (3.2mmT) 抗张伸展率 | % | | 1.5 |
| Flexural strength (3.2mmT) 弯曲强度 | MPa | D790 | 185 |
| Flexural modulus (3.2mmT) 弯曲弹性率 | GPa | | 15.1 |
| Poisson's ratio 泊松比 | — | — | 0.41 |
| Izod impact strength (Un-notched) Izod 冲击强度 Unnotched - 无缺口 | kJ/m^2 | D256 | 33 |
| Rockwell Hardness 洛氏硬度 | R Scale | D785 | 108 |
| Specific gravity 比重 | — | D792 | 1.70 |
| Water absorption 吸水率 | % | D570 | 0.02 |
| Deflection temperature under load (1.82Mpa) 热变形温度(1.82Mpa) | °C | D648 | 285 |
| Thermal conductivity 导热系数 | $\text{kcal/m}\cdot\text{hr}\cdot\text{°C}$ | F433 | 0.340 |
| Flammability rating (V-0 applied thickness) 难燃性 (V-0 取得済み) | mm | UL94 | 0.20 |
| Oxygen index 氧指数 | % | D2863 | 46 |
| Dielectric strength 耐电强度 | kV/mm | D149 | 44.7 |
| Arc resistance 耐电弧 | sec | D495 | 127 |

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| Properties | | Unit | Method (ASTM) | NC-301BL |
|---------------------------------------|--------------------|-----------------------------------|---------------|----------|
| Volume resistivity 体積抵抗率 | | $X10^{15} \Omega \cdot \text{cm}$ | D257 | 15.2 |
| Surface resistivity 表面抵抗率 | | $X10^{15} \Omega$ | | 28.0 |
| Dielectric constant 誘電率 | 10 ² Hz | — | D150 | 4.4 |
| | 10 ⁶ Hz | — | | 3.8 |
| Dielectric dissipation factor 誘電正接 | 10 ² Hz | — | | N/A |
| | 10 ⁶ Hz | — | 0.029 | |

Coefficient of Linear Thermal Expansion (線膨脹係數) Unit: 10⁻⁵cm/cm/°C

| Grade | Direction* | Range of Temperature (溫度範圍) (°C) | | | |
|----------|------------|----------------------------------|---------|---------|---------|
| | | 50-100 | 100-150 | 150-200 | 200-250 |
| NC-301BL | MD | 0.4 | 0.4 | 0.3 | 0.1 |
| | TD | 5.0 | 5.9 | 6.6 | 6.8 |

Direction* : MD= Machine Direction

TD= Transversal Direction

成形品 : 100mm x 100mm x 3mm 平板

Molding shrinkage(成形收縮率) Unit: %

| Grade | MD | TD |
|----------|------|------|
| NC-301BL | 0.02 | 0.48 |

Direction : MD= Machine Direction

TD= Transversal Direction

成形品 : 100mm x 100mm x 1mm 平板

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Molding Conditions (成形条件)

| 成形参数 | | Unit | NC-301BL 成形範囲 | NC-301BL 推薦条件 |
|--------------------|------|------------------------|------------------|------------------|
| 温度 Temp [°C] | 后段温度 | °C | 300~320 | 300 |
| | 中段温度 | °C | 320~350 | 340 |
| | 前段温度 | °C | 340~360 | 360 |
| | 喷嘴温度 | °C | 340~360 | 360 |
| | 模具温度 | °C | 40~120 | 80~120 |
| 射出壓力 | | MPa | 30~120 | 40~80 |
| 射出速度 | | — | 中~高速 | 中~高速 |
| 保持壓力 | | MPa | 20~80 | 40~60 |
| 背压 | | MPa | 3~10 | 3~5 |
| 初期開模速度 | | % | 10 以下 | 5 |
| 冷卻時間 | | 可能範圍內稍長 | | |
| 干燥条件 | | Over 150°C; 8~24 hours | | |

1. 出现流涎时请将喷嘴温度降一些
2. 松退设定过大会较容易卷入空气，请注意
3. 请将残量设低（为防止材料热降解）
4. 冷却时间与计量时间的差较大的情况，推荐设定计量延迟时间
5. 由于固化速度相对较慢，冷却时间请多抓一些，并缓速开模

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