

## TECAST L yellow - 型材 (棒材, 板材, 管件)

### 化學命名

PA 6 C (澆鑄聚醯胺 6)

### 顏色

黃色 不透明

### 密度

1.14 g/cm<sup>3</sup>

### 添加物

油

加工後所產生的數據(依德國標準氣候為主)。

### 主要特色

- 良好的滑動及耐磨特性
- 良好的磨損性
- 電絕緣
- 高韌性
- 耐油、潤滑油及燃油
- 高強度

### 目標產業

- 機械工程
- 汽車工業
- 重工業

| 機械特性           | 參數                            | 值                | 單位                               | 標準                   | 註解                                                                                                                                                                                              |
|----------------|-------------------------------|------------------|----------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 抗拉強度           | 50mm/min                      | 70               | MPa                              | DIN EN ISO 527-2     | (1) For tensile test: specimen type 1b                                                                                                                                                          |
| 彈性模數 (張力測試)    | 1mm/min                       | 3100             | MPa                              | DIN EN ISO 527-2     | (2) For flexural test: support span 64mm, norm specimen.                                                                                                                                        |
| 降伏點抗拉強度        | 50mm/min                      | 68               | MPa                              | DIN EN ISO 527-2     | (3) Specimen 10x10x10mm                                                                                                                                                                         |
| 降伏點伸長率         | 50mm/min                      | 4                | %                                | DIN EN ISO 527-2     | (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.                                                                                                                          |
| 斷裂伸長率          | 50mm/min                      | 50               | %                                | DIN EN ISO 527-2     | (5) For Charpy test: support span 64mm, norm specimen. n.b. = not broken                                                                                                                        |
| 抗彎強度           | 2mm/min, 10 N                 | 95               | MPa                              | DIN EN ISO 178       | (2)                                                                                                                                                                                             |
| 彈性模數 (彎曲測試)    | 2mm/min, 10 N                 | 2900             | MPa                              | DIN EN ISO 178       |                                                                                                                                                                                                 |
| 壓縮強度           | 1% / 2% / 5%<br>5mm/min, 10 N | 21/37/78         | MPa                              | EN ISO 604           | (3)                                                                                                                                                                                             |
| 壓縮模數           | 5mm/min, 10 N                 | 2700             | MPa                              | EN ISO 604           | (4)                                                                                                                                                                                             |
| 衝擊強度(Charpy)   | max. 7.5J                     | n.b.             | kJ/m <sup>2</sup>                | DIN EN ISO 179-1eU   | (5)                                                                                                                                                                                             |
| 缺口衝擊強度(Charpy) | max. 7.5J                     | 6                | kJ/m <sup>2</sup>                | DIN EN ISO 179-1eA   |                                                                                                                                                                                                 |
| 蕭氏硬度           | D                             | 80               |                                  | DIN EN ISO 868       |                                                                                                                                                                                                 |
| 熱特性            | 參數                            | 值                | 單位                               | 標準                   | 註解                                                                                                                                                                                              |
| 玻璃轉化溫度         |                               | 42               | °C                               | DIN EN ISO 11357     | (1)                                                                                                                                                                                             |
| 熔化溫度           |                               | 216              | °C                               | DIN EN ISO 11357     |                                                                                                                                                                                                 |
| 使用溫度           | short term                    | 170              | °C                               |                      | (2)                                                                                                                                                                                             |
| 使用溫度           | long term                     | 100              | °C                               |                      |                                                                                                                                                                                                 |
| 熱膨脹 (CLTE)     | 23-60°C, long.                | 13               | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |                                                                                                                                                                                                 |
| 熱膨脹 (CLTE)     | 23-100°C, long.               | 13               | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |                                                                                                                                                                                                 |
| 比熱             |                               | 1.7              | J/(g*K)                          | ISO 22007-4:2008     |                                                                                                                                                                                                 |
| 導熱係數           |                               | 0.37             | W/(K*m)                          | ISO 22007-4:2008     |                                                                                                                                                                                                 |
| 電性特性           | 參數                            | 值                | 單位                               | 標準                   | 註解                                                                                                                                                                                              |
| 表面電阻           |                               | 10 <sup>14</sup> | Ω                                | DIN IEC 60093        |                                                                                                                                                                                                 |
| 體積電阻           |                               | 10 <sup>14</sup> | Ω*cm                             | DIN IEC 60093        |                                                                                                                                                                                                 |
| 其他特性           | 參數                            | 值                | 單位                               | 標準                   | 註解                                                                                                                                                                                              |
| 吸水率            | 24h / 96h (23°C)              | 0.2 / 0.4        | %                                | DIN EN ISO 62        | (1) Ø ca. 50mm, h=13mm                                                                                                                                                                          |
| 耐熱水/鹼          |                               | (+)              | -                                | -                    | (2) (+) limited resistance                                                                                                                                                                      |
| 耐候性            |                               | -                | -                                | -                    | (3) - poor resistance                                                                                                                                                                           |
| 耐燃性(UL94)      | corresponding to              | HB               | -                                | DIN IEC 60695-11-10; | (4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory. |

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