

## TECASINT 8001 yellow-brown - Stock Shapes (rods, plates, tubes)

### Chemical Designation

PTFE (Polytetrafluorethylene)

### Colour

ochre-brown

### Density

1.88 g/cm<sup>3</sup>

### Fillers

20% polyimide

### Main features

- very good slide and wear properties
- anti adhesive
- very good electrical insulation
- high toughness
- very good UV and weather resistance
- good chemical resistance
- sensitive to hydrolysis in higher thermal range

### Target Industries

- cryogenic engineering
- electrical engineering
- food engineering
- fixture construction
- textile industry

| <i>Mechanical properties</i> | <i>condition</i>    | <i>value</i>     | <i>unit</i>                      | <i>test method</i>   | <i>comment</i>  |
|------------------------------|---------------------|------------------|----------------------------------|----------------------|---|
| Tensile strength             | 50 mm/min           | 15               | MPa                              | DIN EN ISO 527-1     |   |
| Shore hardness               | Shore D             | 65               |                                  | DIN EN ISO 868       |   |
| <i>Thermal properties</i>    | <i>condition</i>    | <i>value</i>     | <i>unit</i>                      | <i>test method</i>   | <i>comment</i>  |
| Glass transition temperature |                     | - 20             | °C                               | DIN EN ISO 11357     | (1) Found in public sources. Individual testing regarding application conditions is mandatory.  |
| Service temperature          | long-term           | 250              | °C                               | -                    | 1)  |
| Thermal expansion (CLTE)     | 50-200°C            | 14.4 / -         | 10 <sup>-5</sup> K <sup>-1</sup> | DIN 53 752           | 2)  |
| Specific heat                |                     | 1                | J/(g*K)                          | -                    | axis  |
| Thermal conductivity         | 40°C                | 0.25             | W/(K*m)                          | ISO 8302             |   |
| <i>Electrical properties</i> | <i>condition</i>    | <i>value</i>     | <i>unit</i>                      | <i>test method</i>   | <i>comment</i>  |
| volume resistivity           | 23°C                | 10 <sup>18</sup> | Ω*cm                             | DIN IEC 60093        |   |
| Dielectric constant          | 10 kHz              | 2.3              |                                  | DIN IEC 60250        |   |
| <i>Other properties</i>      | <i>condition</i>    | <i>value</i>     | <i>unit</i>                      | <i>test method</i>   | <i>comment</i>  |
| Water absorption             | 24 h in water, 23°C | 0.70             | %                                | DIN EN ISO 62        | (1) 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. |
| Flammability (UL94)          | corresponding to    | V0               |                                  | DIN IEC 60695-11-10; | 1)  |

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