

## Technical films

### Tecfilm® PC TC 00112

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**Material:** Tecfilm® PC TC 00112 is a clear, flame-retarding polycarbonate-film. Tecfilm® PC TC 00112 has a velvety surface on one side and a glossy surface on the other.

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**Properties:** Tecfilm® PC TC 00112 can be easily processed, is flame-retarding and offers good electrical and mechanical properties.

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**Applications:** Tecfilm® PC TC 00112 can be used as an insulation for TV- and monitor devices, printed circuit boards, displays, computers and backlit applications.

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**Delivery forms:** Tecfilm® PC TC 00112 is available as a die-cut or molded part, customized cut, tape or roll as well as self-adhesive. Other delivery forms and dimensions upon customer request.

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## Tecfilm® PC TC 00112

| Property                                 | Test method                   | Unit   | Value              |
|--|-------------------------------|--|--------------------|
| Flammability                             | UL94                          |  | V-0                |
| Tensile strength at yield                | ASTM D882 ISO 527             | psi<br>MPa   | 10000<br>70        |
| General tensile strength                 | ASTM D882 ISO 527             | psi<br>MPa   | 8700<br>60         |
| Tensile modulus                          | ASTM D882 ISO 527             | psi<br>MPa   | 319000<br>2200     |
| Elongation at break                      | ASTM D882 ISO 527             | %<br>%   | 100-160<br>100-155 |
| Impact strength 0,75 mm                  | ASTM D3029<br>ISO 6603-1      | ft-lb<br>J   | 21<br>28           |
| Initial tear strength                    | ASTM D1004                    | lb/mil<br>kN/m                                     | 1,4-1,8<br>298     |
| Propagation tear strength                | ASTM D1922                    | g/mil<br>g/mil                                     | 30-55<br>6         |
| Selective resistance (Dynatup)           | ASTM D3763                    | ft-lb<br>J   | 9<br>12            |
| Perm. bending strength (MIT) 0,25 mm     | ASTM D2176-69                 | Double folded                                      | 60                 |
| Perm. bending strength (MIT) 0,50 mm     | ASTM D2176-69                 | Double folded                                      | 20                 |
| Thermal conductivity                     | ASTM D5470                    | W/mK   | 0,2                |
| Coefficient of thermal expansion         | ASTM E831 ISO 11359           | (x10 <sup>-5</sup> /°F)<br>(x10 <sup>-5</sup> /°C) | 3,2<br>5,8         |
| Spec. heat at 4°C                        | ASTM E1269                    | KJ/Kg-°C   | 1,25               |
| Glass transmission temperature           | ASTM D3417/D3418<br>ISO 11357 | °F<br>°C   | 307<br>153         |
| VICAT softening temperature              | ASTM 1525-00                  | °F<br>°C   | 347<br>175         |
| Heat deflection temperature 1,8 MPa      | ISO 75                        | °F<br>°C   | 350<br>175         |
| Shrinkage at 150°C                       | ASTM D1204                    | %  | 0,02               |
| Brittle temperature                      | ASTM D746                     | °F<br>°C   | -211<br>-135       |
| Density                                  | ISO 1183                      | kg/m <sup>3</sup>                                  | 1344               |
| Water absorption                         | ASTM D570 ISO 62              | %  | 0,28               |
| Surface energy, 1. Surface               | ASTM D5946-01                 |  | 34                 |
| Surface energy, 2. Surface               | ASTM D5946-01                 |  | 36                 |
| Surface tension                          | Dyne Pens                     | Dyne   | >44                |
| Refractive index                         | ASTM D542A                    |  | 1,6                |
| Light transmission                       | ASTM D1003                    | %  | 86,1               |
| Yellowness                               | ASTM D1925                    | %  | 1,3                |
| Clouding                                 | ASTM D1003                    | %  | 97                 |
| Gloss at 60°C, 0,375 mm thick, matt side | ASTM D523-60<br>ISO 2813      |  | 7                  |

Dr. Dietrich Müller GmbH

## Tecfilm® PC TC 00112

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**Trademark information:** Tecfilm® is a registered trademark of the company Dr. Dietrich Müller GmbH, Germany.

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**Please note:**

The information in this data sheet is based on our current knowledge and experience. They do not disengage the fabricator and the user from own tests and inspections because of the plenty of possible effects. There is no judicial binding assurance of certain properties or of the qualification for a concrete application in our declaration. We recommend consulting us in individual cases. The acceptor of our products has to observe possible industrial property rights as well as present laws by himself.

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Dr. Dietrich Müller GmbH