

## APET -Technical data sheet

### PHYSICAL PROPERTIES

| Properties              | Method          | Units                   | APET        |
|-------------------------|-----------------|-------------------------|-------------|
| <i>Specific gravity</i> | <i>ISO 1183</i> | <i>g/cm<sup>3</sup></i> | <i>1,33</i> |
| <i>Water absorption</i> | <i>ISO 62</i>   | <i>%</i>                | <i>0,15</i> |

### MECHANICAL PROPERTIES

| Properties                       | Method          | Units                   | APET              |
|----------------------------------|-----------------|-------------------------|-------------------|
| <i>Tensile strength</i>          | <i>ISO 527</i>  | <i>MPa</i>              | <i>53,5</i>       |
| <i>Elongation at break</i>       | <i>ISO 527</i>  | <i>%</i>                | <i>&gt; 100</i>   |
| <i>Tensile modulus</i>           | <i>ISO 527</i>  | <i>MPa</i>              | <i>± 2600</i>     |
| <i>Impact strength unnotched</i> | <i>ISO 180</i>  | <i>KJ/m<sup>2</sup></i> | <i>no burst</i>   |
| <i>Impact strength notched</i>   | <i>ISO 180</i>  | <i>KJ/m<sup>2</sup></i> | <i>3,9</i>        |
| <i>Rockwell hardness</i>         | <i>DIN 2039</i> | <i>M / R</i>            | <i>M80 / R114</i> |

### THERMAL PROPERTIES

| Properties                              | Method           | Units                     | APET           |
|---|------------------|---------------------------|----------------|
| <i>Coefficient of linear expansion</i>  | <i>ASTM D696</i> | <i>mm/mC<sup>-1</sup></i> | <i>± 0,060</i> |
| <i>Specific Heat</i>                    | <i>DSC</i>       | <i>J/gC<sup>o</sup></i>   | <i>1,13</i>    |
| <i>Heat deflection temp. (0,45 MPa)</i> | <i>ISO 75</i>    | <i>°C</i>                 | <i>70</i>      |
| <i>Heat deflection temp. (1,82 MPa)</i> | <i>ISO 75</i>    | <i>°C</i>                 | <i>67</i>      |
| <i>Vicat softening point (1 kg)</i>     | <i>ISO 306</i>   | <i>°C</i>                 | <i>78</i>      |
| <i>Vicat softening point (5 kg)</i>     | <i>ISO 306</i>   | <i>°C</i>                 | <i>73</i>      |

### OPTICAL PROPERTIES

| Properties                | Method           | Units        | APET            |
|---------------------------|------------------|--------------|-----------------|
| <i>Light transmission</i> | <i>ASTMD1003</i> | <i>%</i>     | <i>82 - 89*</i> |
| <i>Haze</i>               | <i>ASTMD1003</i> | <i>%</i>     | <i>1,9</i>      |
| <i>Gloss (60° angle)</i>  | <i>ASTMD1003</i> | <i>units</i> | <i>148</i>      |

## Technical data sheet

### ELECTRICAL PROPERTIES

| Properties  | Method      | Units     | APET          |
|---|-------------|-----------|---------------|
| <i>Surface resistivity</i>                                | ASTMD257    | $\Omega$  | $1 \cdot E15$ |
| <i>Dielectric constant (at 1 MHz)</i>                     | ASTMD150    | ~         | 3,1           |
| <i>Dissipation factor (tg <math>\delta</math>, 1 MHz)</i> | ASTMD150    | ~         | 0,056         |
| <i>Dielectric strength (500V/sec)</i>                     | ASTMD149    | kV/mm     | 18            |
| <i>Glow wire test</i>                                     | IEC 695/2.1 | $C^\circ$ | 650           |

### BARRIER PROPERTIES

| Properties                                 | Method    | Units                    | APET |
|--|-----------|--------------------------|------|
| <i>Permeability for water vapour</i>       | ASTMF372  | g/mm/m <sub>2</sub> /24h | 1,5  |
| <i>Gas permeability for CO<sub>2</sub></i> | ASTMD1434 | g/mm/m <sub>2</sub> /24h | 28   |
| <i>Gas permeability for O<sub>2</sub></i>  | ASTMD3985 | g/mm/m <sub>2</sub> /24h | 5,1  |

*Temporary and limited list made to our best knowledge at this time - based upon 3 mm sheet.*

*The technical data concerning our products are not binding and are given for guidance only.*

*\* Test results from 1 - 3 mm*