

# TYPICAL PHYSICAL PROPERTIES

## Polyester

| Property                         | Test Meth-<br>od | Conditions           | Units   | Value           |                 |
|----------------------------------|------------------|----------------------|---------|-----------------|-----------------|
| Physical                         |                  |                      |         | APET            | PETG            |
| Relative Density                 | ISO 1183         |                      | g/cm³   | 1.33            | 1.27            |
| Water Absorption                 | ISO 62           |                      | %       | 0.15            | 0.15            |
| Mechanical                       |                  |                      |         |                 |                 |
| Tensile Strength at Yield        | ISO 527          |                      | MPa     | 53.5            | 51.5            |
| Tensile Strength at Break        |                  |                      |         |                 |                 |
| Elongation at Yield              |                  |                      |         |                 |                 |
| Elongation at Break              | ISO 527          |                      | MPa     | > 100           | >100            |
| Tensile Modulus of Elasticity    | ISO 527          |                      |         | +2600           | +2200           |
| Flexural Modulus                 |                  |                      | MPa     | 2300            | 2100            |
| Flexural Strength at Yield       |                  |                      |         |                 |                 |
| Izod Impact Strength             | ISO 180          | notched<br>unnotched | kJ/m2   | 3.9<br>no burst | 9.0<br>no burst |
| Charpy Impact Strength           |                  |                      |         |                 |                 |
| Impact Falling Weight            |                  |                      |         |                 |                 |
| Rockwell Hardness                | DIN 2039         |                      | R Scale | 114             | 115             |
| Thermal                          |                  |                      |         |                 |                 |
| Service Temperature              |                  |                      | °C      | -20 to 60       | -40 to 60       |
| Heat Distortion Temperature      | ISO 75           | Load: 1.82MPa        | °C      | 67              | 68              |
| Vicat Softening Temperature      | ISO 306          | Load: 1kg            | °C      | 78              | 82              |
| Coefficient of Thermal Expansion |                  |                      | mm/m°C  | 0.06            | 0.06            |
| Thermal Conductivity             |                  |                      |         |                 |                 |
| Specific Heat Capacity           | DSC              |                      | J/gC°   | 1.13            | 1.13            |
| Optical                          |                  |                      |         |                 |                 |
| Light Transmission               | ASTM D-1003      | 3mm sheet            | %       | 89              | 90              |
| Refractive Index                 |                  |                      |         | N/A             | N/A             |
| Yellowness Index                 |                  |                      |         | N/A             | N/A             |
| Haze                             | ASTM D-1003      |                      | %       | 1.9             | >1              |
| Electrical                       |                  |                      |         |                 |                 |
| Dielectric Strength              | ASTM D-149       | 500V/s               | kV/mm   | 18              | 16              |
| Surface Resistivity              | ASTM D-257       |                      | Ωxcm    | 1*E15           | 1*E15           |

Other physical properties and values available on request.

| PETG            |                |
|-----------------|----------------|
| Standard        | Classification |
| EN 13501:1 2018 | B, s2, 0       |
|                 |                |