

## TECH ABS 702

|                      |   |
|----------------------|---|
| Material             | ABS<br>Acrylonitrile Butadiene Styrene                  |
| Color                | Every color from the Pantone pallet                     |
| Properties           | low warpage, odorless, excellent mechanical properties, |
| Diameter             | 1.75mm / 2.85mm   |
| Diameter tolerance   | +/- 0.03mm  |
| Tolerance roundness  | 98%   |
| Printing temperature | 230-250 °C  |
| Heatbed temperature  | 90-100 °C   |
| Net weight           | 0.5kg / 1 kg / 2,5kg / 8kg                              |
| Gross weight         | 0.85kg / 1.4kg / 3.45kg / 9.04kg                        |
| Spool dimensions     | 200x52x43mm / 200x52x80mm / 200x52x100mm / 355x35x165mm |
| Packaging            | Vacuum packaging, carton box, moisture absorber         |



## Properties of the ABS material

| PROPERTIES AT 23°C                       | TEST METHOD | TEST CONDITION   | VALUE         | UNIT              |
|--|-------------|------------------|---------------|-------------------|
| SPECIFIC GRAVITY                         | ASTMD792    |                  | 1.04          | G/CM <sup>3</sup> |
| VICAT SOFTENING TEMPERATURE (UNANNEALED) | ASTMD1525   | 5Kg/cm<br>1Kg/cm | 94<br>103     | °C<br>°C          |
| TENSILE STRENGTH                         | ASTMD638    | 5mm/min          | 44<br>(6,260) | MPA (PSI)         |
| ELONGATION AT BREAK                      | ASTMD638    | 5mm/min          | 13            | %                 |
| FLEXURAL STRENGTH                        | ASTMD790    | 2.8mm/min        | 64<br>(9,100) | MPA (PSI)         |
| ROCKWELL HARDNESS                        | ASTMD785    | R-scale          | 104           | -                 |
| MOLDING SHRINKAGE (FLOW), 3.2MM          | ASTMD955    |                  | 0.4~0.7       | %                 |

## THERMAL PROPERTIES

|  |           |                  |           |          |
|--|-----------|------------------|-----------|----------|
| HEAT DEFLECTION TEMPERATURE (UNANNEALED), 1/4" | ASTMD648  | 18.56Kg/cm       | 81        | 81       |
|  |           | 4.6Kg/cm         | 94        | 94       |
| VICAT SOFTENING TEMPERATURE (UNANNEALED)       | ASTMD1525 | 5Kg/cm<br>1Kg/cm | 94<br>103 | °C<br>°C |

## FLAMMABILITY

|                      |           |                      |         |            |
|----------------------|-----------|----------------------|---------|------------|
| UL 94 CLASSIFICATION | UL94      | 1.5mm specimen       | HB      | RECOGNIZED |
|                      |           | 3.0mm specimen       | HB      | RECOGNIZED |
|                      |           | 6.0mm specimen       | HB      | RECOGNIZED |
| UV RESISTANCE        | ASTM 4459 | 300HR<br>IVORY COLOR | DELTA E |            |