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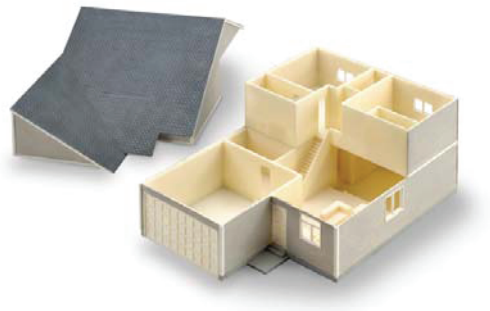
# ABS-M30



ABS-M30 is up to 25-70 percent stronger than standard Stratasys ABS and is an ideal material for conceptual modeling, functional prototyping, manufacturing tools, and end-use-parts. ABS-M30 has greater tensile, impact, and flexural strength than standard ABS. Layer bonding is significantly stronger than that of standard ABS, for a more durable part. This results in more realistic functional tests and higher quality parts for end use.

| Mechanical Properties [1] | Test Method | English | Metric |
|---|---|---|---|
| Tensile Strength (Type 1, 0.125", 0.2"/min) | ASTM D638 | 5,200 psi | 36 MPa |
| Tensile Modulus (Type 1, 0.125", 0.2"/min) | ASTM D638 | 350,000 psi | 2,413 MPa |
| Tensile Elongation (Type 1, 0.125" , 0.2" /min) | ASTM D638 | 4% | 4% |
| Flexural Strength (Method 1, 0.05"/min) | ASTM D790 | 8,800 psi | 61 MPa |
| Flexural Modulus (Method 1, 0.05"/min) | ASTM D790 | 336,000 psi | 2,317 MPa |
| IZOD Impact, notched (Method A, 23°C) | ASTM D256 | 2.6 ft-lb/in | 139 J/m |
| IZOD Impact, un-notched (Method A, 23°C) | ASTM D256 | 5.3 ft-lb/in | 283 J/m |

| Thermal Properties [3] | Test Method | English | Metric |
|---|---|---|---|
| Heat Deflection (HDT) @66 psi, 0.125" unannealed | ASTM D648 | 204°F | 96°C |
| Heat Deflection (HDT) @264 psi, 0.125" unannealed | ASTM D648 | 180°F | 82°C |
| Vicat Softening Temp. (Rate B/50) | ASTM D1525 | 210°F | 99°C |
| Coefficient of Thermal Expansion (flow) | ASTM E831 | 4.9E-05 in/in/°F | 8.82E-05 mm/mm/°C |
| Coefficient of Thermal Expansion (xflow) | ASTM E831 | 4.7E-05 in/in/°F | 8.46E-05 mm/mm/°C |
| Glass Transition (Tg) | DSC (SSYS) | 226°F | 108°C |
| Melt Point | - - - - - - - - - | Not Applicable[2] | Not Applicable [2] |

| Other [3] | Test Method | Value |
|---|---|---|
| Specific Gravity | ASTM D792 | 1.04 |
| Flame Classification | UL94 | HB (0.06" , 1.5 mm) |
| Rockwell Hardness | ASTM D785 | 109.5 |
| Dielectric Strength | IEC 60112 | 28.0 kV/mm |

| Layer Thickness Capability | Support Structure | Available Colors |
|---|---|---|
| 0.013 inch (0.330 mm)<br>0.010 inch (0.254 mm)<br>0.007 inch (0.178 mm)<br>0.005 inch (0.127 mm)[1] | Soluble Supports | Ivory<br>White<br>Black<br>Dark Grey<br>Red<br>Blue |

The information presented are typical values intended for reference and comparison purposes only. They should not be used for d esign specifications or quality control purposes. End-use material performance can be impacted (+/-) by, but not limited to, part design, end-use conditions, test cond itions, etc. Actual values will vary with build conditions. Product specifi cations are subject to change without notice.

[1] Build orientation is on side long edge. [2] Due to amorphous nature, material does not display a melting point. [3] Literature value unless otherwise noted.