# STRATASYS Dimension SST1200es

## Dimension SST 1200es

User-friendly 3D printer for the production of advanced and powerful themes such. functional prototypes, architectural models, clamping fixtures and tools

**Technology: FDM** (Fused Deposition Modeling)

**Construction camber:** 254 x 254 x 305 mm.

**ayer thickness:** 0,254 mm. og 0,330 mm.

**Minimum thickness:** 1,27 mm.

**Tolerance:** up to 50 mm: Pr. Subsequent 50 mm:

**X / Y** = +/- 0,15 **X / Y** = +/- 0,3%

**Z** = + 0,2 mm.

**Model Materiale:** ABSplus™

**Standard Colors:**

White ☐ Black ■ Grey ■ Red ■ Yellow ■

**Colors at an additional cost:**

Ivory ☐ Blue ■ Olive-green ■ Yellow ■

**Support materiale:** SST Soluble Support Technology

( The machine can ONLY building in ABS, however, in 9 different colors)

**Benefits:**

- ABS material - as the ABS thermoplastics that are used for injection molding.
- Cheap models (depending on the number, compared to SLS)
- Faster then SLA and SLS

**Disadvantages:**

- Rough" surface on the bottom and top.

# Miscellaneous features:

| MECHANICAL PROPERTIES | TEST METHOD | ENGLISH XZ AXIS | METRIC XZ AXIS |
|---|---|---|---|
| Tensile Strength, Ultimate (Type 1, 0.125", 0.2"/min) | ASTM D638 | 4,700 psi | 33 MPa |
| Tensile Strength, Yield (Type 1, 0.125", 0.2"/min) | ASTM D638 | 4,550 psi | 31 MPa |
| Tensile Modulus (Type 1, 0.125", 0.2"/min) | ASTM D638 | 320,000 psi | 2,200 MPa |
| Tensile Elongation at Break (Type 1, 0.125", 0.2"/min) | ASTM D638 | 6% | 6% |
| Tensile Elongation at Yield (Type 1, 0.125", 0.2"/min) | ASTM D638 | 2% | 2% |
| IZOD Impact, notched (Method A, 23°C) | ASTM D256 | 2.0 ft-lb/in | 106 J/m |

| MECHANICAL PROPERTIES | TEST METHOD | ENGLISH | | METRIC | |
|---|---|---|---|---|---|
| | | XZ AXIS | ZX AXIS | XZ AXIS | ZX AXIS |
| Flexural Strength (Method 1, 0.05"/min) | ASTM D790 | 8,450 psi | 5,050 psi | 58 MPa | 35 MPa |
| Flexural Modulus (Method 1, 0.05"/min) | ASTM D790 | 300,000 psi | 240,000 psi | 2,100 MPa | 1,650 MPa |
| Flexural Strain at Break (Method 1, 0.05"/min) | ASTM D790 | 4% | 4% | 2% | 2% |

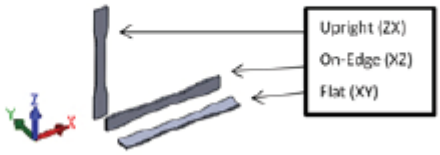
| THERMAL PROPERTIES[2] | TEST METHOD | ENGLISH | METRIC |
|---|---|---|---|
| Heat Deflection (HDT) @ 66 psi | ASTM D648 | 204°F | 96°C |
| Heat Deflection (HDT) @ 264 psi | ASTM D648 | 180°F | 82°C |
| Glass Transition Temperature (Tg) | DSC (SSYS) | 226°F | 108°C |
| Melting Point | - - - - - - - - - | Not Applicable[3] | Not Applicable[3] |
| Coefficient of Thermal Expansion | ASTM E831 | 4.90x10$^{-05}$ in/in/°F | 8.82x10$^{-05}$ mm/mm/°C |

*Orientation: See Stratasys Testing white paper for more detailed description of build orientations.*

*XZ = X or "on edge"*

*XY = Y or "flat"*

*ZX = or "upright"*




| ELECTRICAL PROPERTIES[4] | TEST METHOD | VALUE RANGE |
|---|---|---|
| Volume Resistivity | ASTM D257 | 2.6x10$^{15}$ - 5.0x10$^{16}$ ohm-cm |
| Dielectric Constant | ASTM D150-98 | 2.3 - 2.85 |
| Dissipation Factor | ASTM D150-98 | 0.0046 - 0.0053 |
| Dielectric Strength | ASTM D149-09, Method A, XZ Orientation | 130 V/mil |
| Dielectric Strength | ASTM D149-09, Method A, ZX Orientation | 290 V/mil |

| OTHER[2] | TEST METHOD | VALUE |
|---|---|---|
| Specific Gravity | ASTM D792 | 1.04 |
| Flame Classification | UL94 | HB (0.09", 2.50mm) |
| UL File Number | - - - - - - - - - | E345258 |
| Rockwell Hardness | ASTM D785 | 109.5 |