



ZELTA3D

Prepared at 23 Dec 2023

SLA HD HIGH DETAILED PLASTIC MATERIAL DATASHEET

Description

Our High Detailed Plastic is probably the highest resolution 3D Printing rigid plastic material. It is recommended to be used for design checks, functional prototype, fit test, cosmetic demanding prototypes, figurines, miniatures. This material is generally suitable for highly intricate prototypes.



Technical Data

| | |
|----------------------|--|
| Material Name | High Detailed Plastic |
| Appearance | Opaque Black, Opaque Ivory White, Semi Clear, Grey |
| Surface | Matte Smooth |
| Density | ~1.2 g/cm ³ |

| Material | Ivory White | Semi Clear | Black | Grey |
|--------------------------------|-------------|------------|--|--|
| Plastic Type (Close to) | PC | Rigid | ABS <small>(medical grade available upon request)</small> | ABS <small>(flame retardant grade available upon request)</small> |
| D638 Tensile Strength at Yield | 69 MPa | 47 MPa | 36 MPa | 41 MPa |
| D638 Tensile Strength at Break | 105 MPa | 60 MPa | 60 MPa | 70 MPa |
| D638 Tensile Modulus | 4100 MPa | 2800 MPa | 2800 MPa | 2900 MPa |
| D638 Elongation at Break | 5.3 % | 7 % | 14% | 10% |
| D638 Elongation at Yield | 3% | 3% | 14% | 10% |
| D2240 Flexural Modulus | 3,400 MPa | 2,200 MPa | 1,660 MPa | 2,700 MPa |
| D256A Izod Impact (Notched) | 23 J/m | 25 J/m | 25 J/m | 22 J/m |
| D2240 Hardness (Shore D) | 85 | 85 | 85 | 85 |
| HDT @ 0.46 MPa (66 psi) | 77 °C | 70 °C | 68 °C | 91 °C |
| D648 HDT @ 1.81 MPa (264 psi) | 60 °C | 58 °C | 50 °C | 70 °C |
| Sterilization Compatibility | - | - | Yes <small>(available upon request)</small> | - |
| Biocompatibility | - | - | Yes <small>(available upon request)</small> | - |
| Flame Retardant | - | - | - | UL94-V0 <small>(available upon request)</small> |