

zortrax

# Get More from 3D Printing with Dedicated Zortrax Materials



Discover thoroughly tested thermoplastics in a wide range of vibrant colors.

# Zortrax Materials Comparison

Material	Z-ULTRAT	Z-HIPS	Z-GLASS	Z-PETG	Z-PCABS	Z-ABS	Z-ULTRAT Plus
Type	Spool						Cartridge
Dedicated to	Zortrax M200						Zortrax Inventure
Technology	LPD						LPD Plus
Support material structure	Printed with the same material, mechanically removed						Printed with separate material, soluble in water
Hardware requirements	×	×	Hotend V2	Hotend V2	×	×	×
Surface	Semi-mat	Mat	Gloss and translucent	Gloss	Semi-mat	Mat	Semi-gloss
Hardness	High	Low	Medium	Medium	High	Medium	High
Elasticity	Medium	Medium	High	High	Medium	Medium	Medium
Impact strength	Medium	High	Medium	Medium	Medium	Medium	High
Tensile strength	Low	High	High	High	High	Low	Low
Shrinkage	Low	Very low	Very low	Very low	High	Medium	Low
Mechanical treatment	✓	✓	✓	✓	✓	✓	✓
Chemical treatment (acetone)	✓	×	×	×	✓	✓	✓
Resistance to	-	Solvents	Salts Acids Alkalis	Salts Acids Alkalis	Tempera- tures	-	-

## NOTE

Final results of 3D printed models depend on many factors such as: proper preparation of a 3D model for 3D printing, selecting optimal type of material, selecting optimal settings in Z-SUITE software, maintenance and calibration of the 3D printer, proper preparation and calibration of the platform, use of side covers (in case of Zortrax M200 3D printer). Zortrax S.A. is not responsible for any damage of machines and low printing quality caused by the use of different materials than authorized by Zortrax S.A. Color of the materials presented in the offer may differ depending on the way of presentation (screen settings, type of print or paper), production batch or way of storage (exposition to light or other external factors). Materials should be stored in its original packaging (foil protecting from light and moisture) before they are used.

# Powerful range of additive manufacturing materials that maximize benefit of 3D printing for various industries



Automotive & Aerospace



Industrial Design



Architecture



Production Engineering



Education



Consumer Products

## Zortrax Ecosystem

Zortrax products are a complete package of integrated solutions – professional 3D printers, compatible materials, and dedicated software. Thanks to this, our 3D printers achieve high quality prints, dimensional accuracy and repeatability, while eliminating the hassle of adjusting equipment from third-party materials or software. The Zortrax Ecosystem is everything you need in one smart box.



### Z-SUITE Software

Perfectly integrated with the machine, helps convert 3D model files and it's compatible with most of 3D design software.



### Printing Materials

A wide range of carefully picked colors, only quality materials, exceptional printing features.



### 3D Printers

Zortrax M200 and Zortrax Inventure. Reliable and almost maintenance-free, working out of the box, tested by thousands of users worldwide.

Only dedicated Zortrax Materials guarantee high quality prints.

# zortrax M200 MATERIALS



## Z-ULTRAT® Prototype strong, durable parts.

Versatile material suitable for 3D printing many different types of models. It is perfect for prototyping models with features similar to products manufactured in the injection molding technology. It's also suitable for mechanical and chemical post-processing. Objects 3D printed with Z-ULTRAT are strong, stable and time-resistant. Z-ULTRAT properties are suitable for use in the evaluation of the object before starting mass production.

### APPLICATIONS

- > Functional prototypes
- > End use parts
- > Casing prototypes for testing
- > End use casing parts for low volume production
- > Prototypes of consumer products
- > Mechanical parts
- > Parts simulating properties of elements made in injection molding
- > Elements required to be durable and stable over time

#### Basic



Blue Yellow Green Cool Grey Ivory Pure Black Red

#### Neutrals



Nude Magenta Olive Brown

#### Neons



Neon Blue Neon Green Neon Yellow Neon Orange Neon Red Neon Pink

#### Pastels



Pastel Yellow Pastel Pink Pastel Purple Pastel Blue Pastel Turquoise



## Z-HIPS® Create factory-like casing prototypes.

Material with outstanding resistance to warping during 3D printing process. Thanks to this feature, Z-HIPS is excellent for making large elements such as: housing prototypes, bigger parts or architecture mockups. It has unique matte texture, which absorbs light and reduces visibility of minor flaws, giving casings prototypes real commercial look. Z-HIPS is also resistant to solvents.

### APPLICATIONS

- › Models with large, flat surfaces
- › Architecture mockups
- › Casing elements for testing
- › Prototypes of mechanical parts
- › Prototypes of consumer products
- › Parts requiring resistance to acetone and solvents



Grey    Natural White    Black

#### NOTE

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# zortrax M200 MATERIALS



## Z-GLASS® Make and test translucent elements.

Material with translucent structure, great for prototypes of products, which are dedicated to be manufactured from glass or translucent plastic. Thanks to light-transmitting surface, Z-GLASS is applicable in automotive, industrial design and architecture projects. It is also resistant to salts, acids and alkalis, which makes it perfect for creating mechanical parts exposed to chemicals.

### APPLICATIONS

- › Concept models which are to imitate glass or translucent plastic
- › Functional prototypes of translucent objects
- › Translucent decorative elements
- › Parts required to be resistant to salts, acids or alkalis



Natural  
Transparent

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## Z-PETG<sup>®</sup> Create diverse and challenging parts.

Material highly resistant to salts, acids and alkalis, excellent for creating mechanical parts that are used against chemicals. Z-PETG is physically durable, impact resistant and great for prototyping diverse and demanding elements that are time-resistant and can be exposed to UV light. The surface of models 3D printed from Z-PETG is characterized by the highest gloss finish.

### APPLICATIONS

- › Parts required to be resistant to salts, acids or alkalis
- › Machine components
- › Elements requiring resistance to greases and oils
- › Packaging prototypes
- › Prototypes of mechanical parts



Grey Black

#### NOTE

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## Z-PCABS®

Create durable, temperature-resistant prototypes.

The material is a blend of Z-ABS and polycarbonate (PC) characterized by durability and the highest impact resistance which makes it ideal for producing casings. Thanks to its resistance to high and low temperatures, UV light and chemicals, Z-PCABS is commonly used for producing functional prototypes. The blend is also widely utilized in the automotive industry. Models 3D printed from Z-PCABS have got good insulating properties and high level of hardness, they are suitable for various post-processing techniques.

### APPLICATIONS

- > Consumer electronics casings
- > Automotive parts
- > Portable multimedia players
- > Structural components



Ivory



# zortrax M200 MATERIALS



## Z-ABS® Ideal for basic applications.

Economical material for common purposes. Good for printing concept models and mockups for display. Wide range of colors gives the ability to choose different material options for 3D printing gadgets and figurines. Z-ABS is a great solution for beginners.

### APPLICATIONS

- > Concept models
- > Gadgets and figurines
- > Display models
- > Models with moderate functional and testing properties



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## Z-ULTRAT Plus® Prototype complex, precise parts.

Material available in cartridge system, dedicated to Zortrax Inventure 3D printer. It has features required to create complex and demanding prototypes. In combination with LPD Plus technology, Z-ULTRAT Plus gives the ability to 3D print advanced and moving parts in just one element.

### APPLICATIONS

- › Functional prototypes
- › End use parts
- › Complex moving parts 3D printed as one element
- › Prototypes reflecting properties and look of end use products
- › Advanced and complex architecture mockups
- › Small elements with many details
- › Parts requiring high dimensional accuracy
- › Mechanical parts
- › Models with complex shape, difficult to obtain in other rapid prototyping technologies



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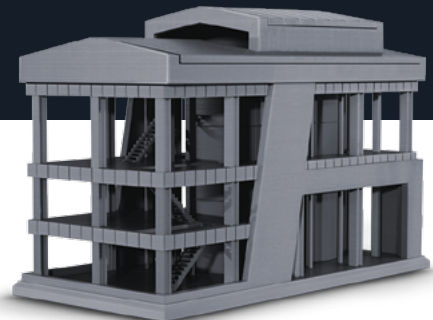
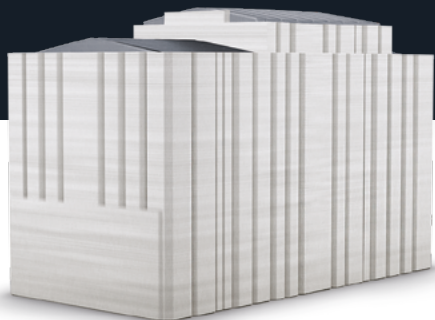


## **Z-SUPPORT**<sup>®</sup> Detailed shapes easily accessible.

Z-Support is a soluble material dedicated for Zortrax Inventure 3D printer, based on LPD Plus technology. Together with Z-ULTRAT Plus the material allows to create complex prototypes including intricate shapes and moving mechanisms 3D printed as one part. Z-Support is available in a form of a cartridge.

## **DSS**<sup>®</sup> Fast and efficient support removal.

DSS (Dissolvable Support System) is the technology based on easily removable support made from a soluble substance. To get rid of the support material the model should be put into the DSS station containing water-based solution and left for a couple of hours to allow the Z-Support to dissolve. The whole process is almost hands-free and leaves the 3D print surface smooth and free from excess residue.





Zortrax M200  
Best Plug & Play 3D Printer  
for 2015 and 2016



Zortrax M200  
Best Overall 3D Printer - 2nd Place Award



**Institute of Industrial  
Design**

Zortrax Inventure  
Good Design Award 2015 in New Technologies  
and Innovative Product of the Year 2015



**3D HUBS**

Zortrax M200 Best Desktop Device  
Worldwide Award 2015

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