



PLANETA 3D

Best 3D PRINTING solutions



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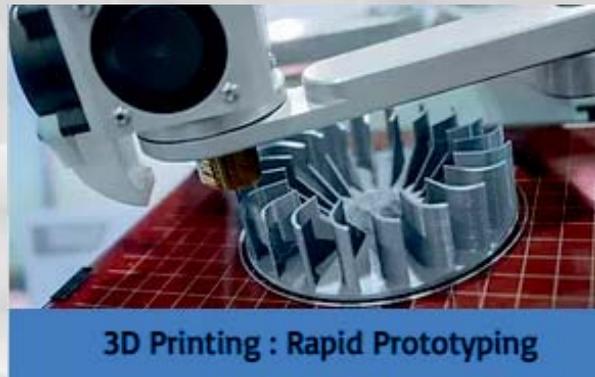


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What We Provide

PLANETA 3D, provide clients with a wide range of industrial 3D Printing services that bring their brand's vision to life. Design's 3d print is created with the utmost attention to detail, and will place you miles ahead of your competitors. As a leading 3D Printing and Industrial Designer in Mumbai, PLANETA 3D is results-driven and really take the time to understand the needs and vision of my clients. Check out services provided in 3D Printing, and see what PLANETA 3D can do for you today.

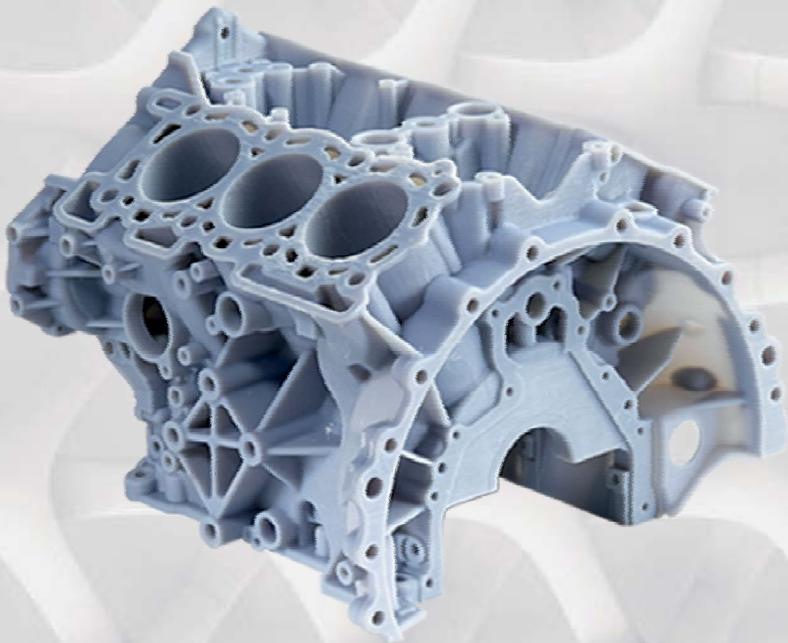




RAPID PROTOTYPING

PLANETA 3D - Rapid Prototyping and 3D Printing Service provider based in Mumbai, INDIA.

The list of raw material available for prototypes is shared in this catalog for ease and perfect choice of material.



3D PRINTING SERVICES

Makes object without any mold with best design precision

Printing technologies we provide 3D print services:

□ **FDM**



□ **FFF**

□ **SLA**



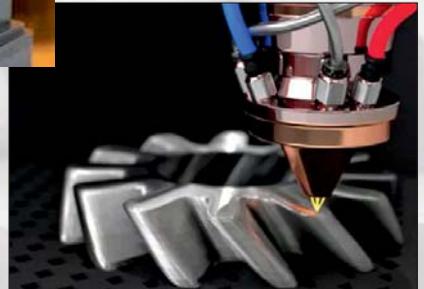
□ **DLP**



□ **SLS**

□ **DMLS**

□ **Metal 3D printing**



3D PRINTING SERVICES

Makes object without any mold with best design precision

Raw Materials

PLANETA 3D is dedicated to providing high quality services to their clients. These materials are used to 3d print products which are used in fields like:

- Medical
- Automobiles
- Aerospace
- Industrial products
- Jewelry
- Toys
- Sculptors
- Electronics
- etc...

Take a look below to find out what materials we specialize in, and get in touch with any additional questions or to learn more.

• **ABS – Acrylonitrile Butadiene Styrene**



ABS is a very common thermoplastic material known in the injection molding industry. It is used for toys such as LEGO, constructions in the automotive industry and in protective headgear. ABS is sturdy, strong and has a high melting point.

Applications

- General industrial products
- Toys

• PLA – Polylactic Acid

PLA is one of the most popular bioplastics that is usually used in plastic cups, disposable tableware or food packaging. PLA is Biodegradable, derived from corn starch / sugarcane with shiner / smoother finish than ABS. PLA now is equally durable and tough as ABS material.

Applications

- General industrial products
- Miniatures
- Sculptures
- Toys
- etc



• Direct Castable RPT

CAD to CAM with great quality output and Smooth Surface for finely integrated end-quality. Minimum Ash content in Casting output from Wax Piece. 100% Wax Direct Castable RPT is the only solution to cost cutting and time utilization of your jewelry production

Applications

- Jewelry
- Dental



• Non Castable RPT



CAD to CAM with great quality output and Smooth Surface for finely integrated end-quality. Non castable RPT is made to reuse it to make it multiple molds. Its more used for common jewelry, coins and sculptures. It can be used for injection molding process to make industrial products.

Applications

- Jewelry
- Industrial products

• Biocompatible*, sterilizable, translucent & high temperature resistant



Capable of meeting ISO standards for biocompatibility (sensitization, cytotoxicity and irritation), this material is sterilizable by autoclave. Highly accurate parts with excellent feature resolution and high definition parts are delivered using this material.

Applications

- General medical applications requiring biocompatibility, sterilization and/or thermal resistance
- Surgical drill guides, splints
- Parts requiring rigidity with high temperature resistance
- Fluid handling manifolds
- Elevated temperature testing
- Parts with high definition details
- Threaded assemblies
- Visualization and fluid flow models

- **Biocompatible*, sterilizable, white material & high temperature resistant**



For a range of medical and industrial applications a rigid and white material which includes the properties of biocompatibility, sterilization and/or thermal resistance is required. Capable of meeting ISO standards for biocompatibility (cytotoxicity, sensitization and irritation), this material can also be sterilized by autoclave.

Applications

- General medical applications requiring biocompatibility, sterilization and/or thermal resistance
- Surgical drill guides, splints
- Bone models
- Parts requiring rigidity with high temperature and/or water resistance
- Parts with high definition details

- **High Thermal-Resistance, Translucent Amber Plastic for Flow Visualization (HDT >300 °C)**



HI TEMP 300-AMB is an ultra-high temperature plastic for use in applications requiring high heat resistance. With heat deflection temperature of over 300 °C at both low and high stress (HDT at 0.455 and 1.82 MPa), this material is well suited for the testing of high temperature components in applications

Applications

- High temperature components testing, and general use parts including: HVAC, consumer appliances, motor enclosures, stators, molds and the like. It does not require a secondary thermal post-cure.
- Low pressure molding/tooling: expanding foams, rubbers, etc.
- Overmolding

• Eggshell rigid plastic



Eggshell rigid plastic to create sacrificial tooling that withstands silicone injection at high temperature and pressure, but breaks away easily. It shatter easily from silicone once the mold is filled and cooled. Its amber color allows for visualization of the injected silicone.

Applications

- For casting silicone parts in any durometer
- Customized end-use and low volume production parts of silicone material
- High quality prototypes quickly produced

• TPU - Thermoplastic Polyurethane

TPU is a flexible, abrasion resistant thermoplastic material. It's being used in manufacturing processes for both consumer and industrial use. TPU material offers many



benefits and features. 3D printed parts with TPU are durable and have the ability to withstand ambient temperatures of up to 80 degrees Celsius. Let it be prototype of shoe's sole or tyre of a miniature car or flexible button or any part which needs elasticity are made by TPU material.

Applications

- For prototype of rubber type material
- Personalized consumer product

• Onyx



Onyx material is made from Nylon mixed with chopped carbon fiber which offers a high-strength thermoplastic with excellent heat resistance, surface finish, and chemical resistance. Onyx can be printed as a single material or can be printed with one of continuous fibers to give strength comparable to aluminum. Onyx is Durable and Strong, it has Excellent Chemical Resistance with High Heat Deflection Temp. Its on demand, high performance plastic.

Applications

- For prototype
- Tooling
- Fixtures
- End-use parts



• Elastomeric



This black elastomeric material offers excellent compressive characteristics. A rubber-like material for accelerated designing and prototyping of a wide variety of elastomeric products for industrial and consumer goods applications. It has more elasticity and design variable than TPU.

Applications

- Design verification and validation and testing of:
 - Hoses
 - Tubes
 - Weather stripping
 - Seals
 - Grommets
 - Gaskets
 - Spacers and other vibration dampening components

• Flexible and Durable black plastic



This black plastic is a flexible, high impact-resistant material for extremely durable black parts with the look and feel of production polypropylene. Great for functional prototypes, enclosures and assemblies, as well as short-run production parts, this fatigue resistant material provides outstanding flexibility and accuracy, enabling many applications.

Applications

- Functional assemblies and prototypes
 - Automotive styling parts
 - Consumer goods and electronic components
 - Containers and enclosures
 - Product design
- Master patterns for RTV/silicone molding
- Concept and marketing models

• High Temperature, Transparent, Bio-compatible Plastic

A strong and transparent rigid material for applications requiring temperature resistance and/or biocompatibility, ideal for rapid tooling, functional prototyping in warm environments, and medical devices with fine features and internal structures. This transparent material is also capable of meeting USP Class VI standards for biocompatibility, to be used for printing medical devices where bio-compatibility is required and fine features and small internal structures are needed for lattice structure or fluid flow channels.



Applications

- Molds and dies for rapid tooling applications
- Functional testing in warm environments
- Under-the-hood components
- Heated fluids and gasses flow analysis
- Electronics enclosures/cases
- Biocompatible, medical device applications

• Nylon



Strong, tough thermoplastic material that stands up to the rigors of long-term real world use replacing traditionally injection molded articles.

Applications

- Functional prototyping and low volume production parts for:
 - Automotive
 - Aerospace
 - Consumer goods
- Housings and enclosures
- Snapfits and complex assemblies
- Connectors

• Stainless Steel



Extra low carbon grade stainless steel 316. Parts can be machined, spark-eroded, welded, shot-peened, polished and coated if required. For parts that need to be sterilized and highly corrosion resistant. Austenitic stainless steel type LaserForm 316L is the extra low carbon grade of 316. This steel is used as a general purpose material with excellent mechanical and corrosion properties at room temperature. Its chloride resistance makes this specific grade of stainless steel suitable for marine

applications. 316L stainless steel is also the preferred material for use in hydrogen atmospheres or for hydrogen piping / cooling applications. Furthermore 316L retains good mechanical properties at sub-zero and even cryogenic temperatures and is suitable for structural components in low-temperature applications.

Applications

- Small to medium series parts, requiring high corrosion resistance and are sterilizable
 - Pharmaceutical industry
 - Food machinery
 - Chemical industry
 - Process industry
- Medical tools

• Aluminum Alloy

Aluminum alloy combines silicon and magnesium as alloying elements, which results in good mechanical properties. Due to the very rapid melting and solidification during Direct Metal Printing, Aluminum alloy in as-printed condition shows a fine microstructure and obtains a good combination of strength and ductility. Lower silicon content improves electrical and thermal conductivity properties. Heat treatment allows electrical and thermal conductivity to be fine-tuned to the needs of the application. Additionally,



the lower silicon content improves the anodization quality as well as the corrosion resistance. Aluminum alloy's low material density is well suited for the aerospace and automotive industry. Innovative applications such as mold design and specific heat exchanger applications make use of the high thermal conductivity of this alloy.

Applications

- Light weight parts for aerospace and automotive
- Innovative approaches to mold design
- Heat exchangers (HEX)

• Maraging Steel

With properties like 1.2709, this steel is easily heat-treatable in a simple age-hardening process resulting in excellent hardness and strength. Maraging Steel has good wear resistance. In regards to post-processing, the material shows good weld ability and machine ability. Maraging Steel is ideal for innovative tool and mold designs including conformal cooling channels for injection molding, die casting and extrusion. The material is also used for high-performance aerospace, automotive and other industrial applications which require high strength and wear resistance.



• Maraging Steel

Applications

- Innovative tool and mold designs including conformal cooling channels for injecting molding, die casting and extrusion
- High-performance industrial parts, e.g. tire manufacturing and automotive
- High-wear components
- Aerospace components

• Ni718

A Nickel-based alloy fine-tuned for use with ProX[®] DMP 320 metal powder, producing parts for high temperature applications. Ni718 has outstanding corrosion resistance in various corrosive environments and excellent cryogenic properties. This precipitation-hardening nickel-chromium alloy is characterized by good tensile, fatigue, creep and rupture strength at temperatures up to 700°C. Moreover it has outstanding corrosion resistance in various corrosive environments as well as excellent cryogenic properties. These benefits make Ni718 ideal for many high temperature applications such as gas turbine parts, instrumentation parts, power and process industry parts etc. Parts can be post-hardened to 40 HRC by precipitation-hardening heat



treatments. The parts can be machined, spark-eroded, welded, shot-peened, polished and coated if required.

Applications

- High temperature applications such as :
- Components for liquid fueled rockets
- Rings, casings and formed sheet metal parts for aircraft and land-based gas turbine engines
- Cryogenic tankage
- Fasteners and instrumentation parts

• Titanium Grade 23

Titanium alloy fine-tuned for use with ProX[®] DMP 320 metal powder producing technical and medical parts with a combination of high specific strength and excellent biocompatibility. Ti Gr23 is ELI (Extra Low Interstitial) grade with lower iron, carbon, and oxygen content and is known for higher purity than Ti Gr5 (A) resulting in improved ductility and fracture toughness. This titanium alloy is commonly used in aerospace and medical applications because of its high strength, low weight and excellent biocompatibility. The reduction of oxygen content to 0.13% (maximum) in grade 23. This confers improved ductility and fracture toughness, with some reduction in strength.



These benefits make Ti Gr23 (A) the most used medical and aerospace titanium grade. It can be used in biomedical applications such as surgical implants, orthodontic appliances or in-joint replacements due to its biocompatibility, good fatigue strength and low modulus.

Applications

- Industrial applications where light weight at high strength is key
- Medical implants
- Medical tools and devices
- Dental prostheses

All the above material can be used to make a single piece or small batch production.

3D Printing saves your TIME and MONEY with better geometrical precision and quality

Planeta 3D also provides INDUSTRIAL DESIGNING SERVICES

Design can be made from simple pencil drawings on paper with proper planning.

3D SCANNING

3D Scanner is a device to analysis a real world object or environment to collect data on its shape and possibly its appearance. The collected data can then be used to construct digital three dimensional (3D) model.

The purpose of a 3D scanner is usually to create a 3D model. This 3D model consists of geometric samples on the surface of the subject. These points can then be used to design the shape of the subject (a process called reconstruction). If color information is collected at each point, then the colors on the surface of the subject can also be determined.

This whole process, going from the single range map to the whole model, is usually known as the 3D scanning pipeline.

Taking quality as our prime concern, we are also involved in offering best quality, high resolution and accurate 3D scanning services. We undertake turnkey 3D scanning projects for civil constructions also.

We also sell all types of 3d scanners



PLANETA 3D is a unit of GALAXY ENTERPRIISE



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