SINTERIT

# 3D SLS

## FOR THE PROFESSIONALS

SLS SOLUTIONS

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**COMPACT**
3D SLS printer series

# LISA X

MORE INFORMATION

## Functions:

- First Industry 4.0 ready SLS printer on the market
- Large print volume

  Industrial-level speed (up to 14 mm/h) and quality
- Multi-material – 7 Sinterit powder profiles, 3rd party materials available
- Efficient workflow (fast warm-up, expert mode, intuitive UI)
- Atex Safety Certificate (as part of Performance set)

Large build volume combined with great printing speed and quality of LisaX provides an ideal solution for companies whose 3D printing needs extend what other compact printer can provide. LisaX is the best choice for prototyping, small batch, customized production, tooling, and other professional uses.

**Industry 4 0** is a type of “smart” and connected manufacturing system that is designed to report, predict and detect problems, which increases productivity.

# Fast. Versatile. Accessible.

Industry 4.0 | Large print volume | Industrial speed and build size | Easy material change | ATEX for Performace set

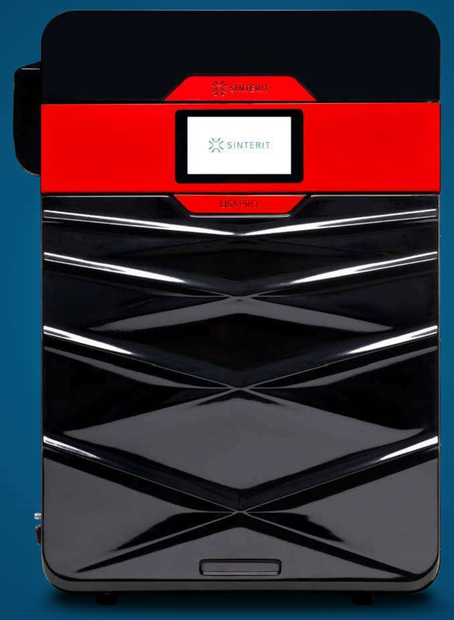
## Parameters

| | |
|---|---|
| **Speed** | up to 14 mm/h |
| **Build volume** | 8 l |
| **Min–Max powder loading** | 1-7 kg |
| **Laser type** | IR Fiber Coupled Diode Laser, 30[W]; λ = 976 ± 3 [nm] rated to > 30,000 hrs |
| **Laser scaner type** | Galvo |
| **Dimensions** | 650x540x1300 [mm] (25.6x21.3x51.2 [in]) |
| **Weight** | 145 [kg] (319.7 [lbs]) |
| **Max size of print diagonally** | 398 [mm] (15.7 [in]) |
| **Max print volume** | TPU based / Flexible material: 130x180x340 [mm] (5.1x7.1x13.3 [in])<br>PA/PP: 130x180x330 [mm](5.1x6.7x13.3 [in]) |
| **Layer height (min-max)** | 0.075 – 0.175 [mm] (0.003 – 0.007 [in]) |
| **Inert gas control system** | built-in |
| **Operating voltage** | 230 [V] AC, 50/60 [Hz], 8 [A] or 100-120 [V] AC, 50/60 [Hz], 15 [A] with converter included |
| **Build Speed** | up to 14 [mm/h] (0.55 [in/h]) |

**COMPACT**
3D SLS printer series

# LISA **PRO**

MORE INFORMATION



## Functions:

- High quality of prints
- Compatible with 9 Sinterit SLS powders
- Possibility of using 3rd par ty materials
- Open system – 32 printing parameters to be modified
- Easy material change

Open environment and access to a wide range of materials make Lisa PRO perfect choice for innovators, researchers, academics… In short – those who want to check and push the limit of what SLS technology can do. Lisa PRO gives users the most flexibility and control over the printing process.

## Reliable. R&D friendly. Open.

**Open parameters**

**9 available materials**

**3rd party materials**

**Printing from 1 kg of powder**

### Parameters

| | |
|---|---|
| **Speed** | up to 3 mm/h |
| **Build volume** | 4 l |
| **Min–Max powder loading** | 1-5 kg |
| **Laser system** | IR Laser Diode, 5W; λ = 808 [nm] Rated to > 10,000 hrs |
| **Laser scanner type** | XY |
| **Dimensions** | 690x500x880 [mm] (27.2x19.7x34.6 [in]) |
| **Weight** | 90.0 [kg] (198.0 [lbs]) |
| **Max size of print diagonally** | 313 [mm] (15.7 [in]) |
| **Max print volume** | TPU based / Flexible material: 110x160x245 [mm] (4.3x6.3x9.6 [in])<br>PA/PP: 110x160x230 [mm] (4.3x6.3x9.1 [in]) |
| **Layer height (min-max)** | 0.075 – 0.175 [mm] (0.003 – 0.007 [in]) |
| **Operating voltage** | 220–240 [V] AC, 50/60 [Hz], 7 [A] or 100–130 [V] AC, 50/60 [Hz], 15 [A] |

# MULTIPHS

MORE INFORMATION

## Functions:

- Multi-functional workstation, compatible with Compact/Industrial line, or other SLS printers
- Atex Safety Certificate (as part of Performance set)
- Easy depowdering and fast material change
- Efficient powder collecting

  Multi-material – 5 sieving programs available

Multi PHS is a one-size-fits-all workstation: it's compatible with all of our printers and can be used with 3rd party machines. Thanks to 5 sieving programs it can be used with morphologically different materials – all the powders in Sinterits offer and others.

# Multi-function Powder Handling Station

**Designed for SLS**

**Multimaterial sift system**

**Ready for 3rd**

**ATEX for Performace set**

Parameters

| | |
|---|---|
| **Powder capacity** | 20 [l] 6.3 [gal] |
| **Operating Voltage** | Operating Voltage 80 - 264 [V] AC, 47–63 [Hz], 6.67 [A]<br>Power Consumption 80 [W] |
| **Powder recovery programs** | 4 |
| **Powder recovery speed** | 10 [min]–25 [min] |
| **Material change speed** | > 30 [min] |
| **Set contents** | 3 nozzles<br>Anti-noise headphones<br>Powder Wiper, PVC brush<br>Special brush for deep material change cleaning<br>Cotton pads |
| **Dimensions** | 1000 x 700 x 1700 [mm]<br>(39.4 x 27.6 x 66.9 [in]) |
| **Weight** | 157 [kg] (346.2 [lbs]) |
| **Space for installation** | 1700 x 2200 x 1800 [mm]<br>(66.9 x 86.6 x 70.9 [in]) |

# VACUUM CLEANER **ATEX**

MORE INFORMATION

## Functions:

- Safe powder recovery & cleaning
- Explosion proof certified
- High storage capacity
- Absolute HEPA filtration / class M
- Compatible with Multi PHS, separator

ATEX / Intertek Vacuum Cleaner is a perfect solution for efficient collecting of unsintered powder and cleaning the workspace. ATEX safety certificate ensures explosion-proof and effective work.

## Safe powder collecting

**Safety**

**Efficient powder recovery**

**Quick material change**

**ATEX**

Parameters

| | |
|---|---|
| **Suction inlet** | 50 [mm] |
| **Noise level (EN ISO 3744)** | <80 dB [A] |
| **Capacity of collection unit** | 40 [l] |
| **Filter type** | Star, M class filtration |
| **Dimensions** | 440 x 420 x 780 [mm]<br>(17.3 x 16.5 x 30.7 [in]) |
| **Weight** | 21.5 [kg] (47.3 [lbs]) |
| **Certificates** | ATEX Z22 / NRTL D2C2 (ETL Intertek listed) |

# POWDER SIEVE

MORE INFORMATION

## Functions:

- Handsfree powder sieving
- Fully automatic
- 12l container
- Easy to use and clean

Powder Sieve is a useful tool for small batch powder maintenance. With this device, you can sieve unsintered powder and prepare it for another print in about 18 minutes. With just a single button to press, it couldn't be easier to use.

## Easy powder sieving

SLS
**Designed for SLS**

**Easy to use and clean**

**Fully automatic**

**Quick material change**

Parameters

| | |
|---|---|
| **Powder capacity** | 12 [l] (3.17 [gal]) |
| **Sieving time** | 18 [min] |
| **Dimensions** | 330 x 340 x 600 [mm]<br>(13.0 x 13.4 x 23.6 [in]) |
| **Weight** | 22.5 [kg] (49.5 [lbs]) |
| **Operating Voltage** | 12 [V], 2 [A], 50/62 [Hz] |
| **Power consumption** | 24 [W] |

# SANDBLASTER SLS

MORE INFORMATION

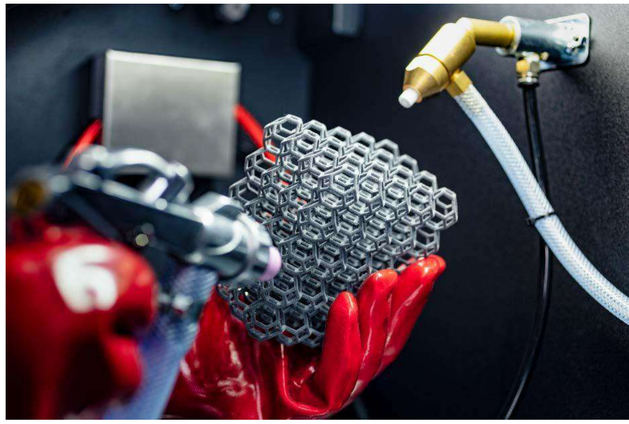
## Functions:

- Only sandblaster on the marked dedicated for SLS
- Compatibility with ATEX Vacuum Cleaner
- Two sandblasting nozzles

Low abrasive consumption

- HEPA filtration and fully sealed construction to prevent powder spreading

Only sandblaster on the market dedicated specifically to SLS postprocessing. Sandblaster SLS uses compressed air and glass abrasive to precisely clean the SLS prints of powder residues. It is equipped with HEPA filtration system for increased safety.



## Precise, dust-free post-processing

Designed for SLS

Safety

Adapted to work with small

ATEX for Performace set

### Parameters

| | |
|---|---|
| **Powder capacity** | 10 [kg] (22 [lbs]) |
| **Size of internal mesh** | 6 x 6 [mm] (0.2 x 0.2 [in]) |
| **Dimensions** | 700 x 550 x 720 [mm]<br>(27.6 x 21.7 x 28.3 [in]) |
| **Weight** | 30.5 [kg] (67.1 [lbs]) |
| **Operating Voltage** | 110 / 230 [V] AC, 50/60 [Hz] |
| **Working pressure** | 5.0 - 8.6 [bar] / 72.5 - 125.0 [psi] |
| **Filter type** | HEPA |

## DEDICATED POWDER TOOLS

### Functions:

- Wide range of post-processing tools fit for any task
- Powder management tools for an easy and clean job
- Personal protection equipment

Essential tool kit for working with powder, designed to support Sinterit SLS printing ecosystem.

## FOLDABLE TRAY

### Functions:

- Ergonomic – size suitable for depowdering IO Box
- Comfortable for powder transfer
- 50l capacity
- Compatible with PHS
- Easy to storage, use and clean

Foldable and light, the tray is easy to store. When unfolded, it creates an optimal workspace for initial post-processing. It's easy to vacuum or pour powder out of and into a bucket. It can be especially useful when working with rarely used materials.

## S E PA R AT O R

### Functions:

- High efficiency
- Simple handling
- Universal metal container 12l included, also compatible with 20l container
- Easy to remove and empty

Powder separator is a useful tool for manual depowdering, that helps users recover maximum unsintered powder. It can be connected to Atex Vacuum Cleaner.

# PERFORMANCE SET **ATEX CERTIFIED**

MORE INFORMATION

## Functions:

- First Atex certified SLS printing set on the market
- New, improved Multi PHS included
- Everything a Pro user needs for fast and efficient printing and post-processing

Based on the fastest compact printer in the world, together with new MultiPHS Performance Set provides a solution for very fast prototyping, small production or effective research. It is the most frequently chosen solution in our offer.

## Included:

- LISA X 3D Printer
- Sinterit Studio Software Advanced
- Multi PHS
- ATEX Vacuum Cleaner + separator
- Dust-free Sandblaster SLS
- Dedicated Powder Tools
- Consumables Kit
- STANDARD COMPACT Service plan for 12 months
- Flight Case

# Highest performance and highest safety

**Industry 4.0**

**Open parameters**

**Easy material change**

**Standard service**

**Sinterit Studio Advanced**

**ATEX for Performace set**

# MULTIFUNCTION SET **ATEX CERTIFIED**

## Highest performance and highest safety

- Industry 4.0
- Open parameters
- Easy material change
- Standard service
- Sinterit Studio Advanced
- ATEX for Performace set

## Functions:

- First Atex certified SLS printing set on the market
- New, improved Multi PHS included
- Everything a Pro user needs for fast and efficient printing and post-processing

Based on the fastest compact printer in the world, together with new MultiPHS Performance Set provides a solution for very fast prototyping, small production or effective research. It is the most frequently chosen solution in our offer.

## Included:

- 2x LISA X Printer
- Powder Sieve
- Multi PHS
- ATEX Vacuum Cleaner + separator
- Dust-free Sandblaster SLS
- 2x Dedicated Powder Tools
- 2x Sinterit Studio Advanced
- 2x Flight case
- STANDARD COMPACT Service Plan for 12 month
- 2x Consumable

# POSTPROCESSING SET

## Functions:

- Complex, open solution for SLS post-processing
- Compatible with LisaX, Nils480 and 3rd party SLS printers
- Maximum powder recovery

Postprocessing set consist of all the peripherals a professional user needs for depowdering, material management and storage. It can be used with any of our printers, but it also works with any SLS machine, so you can easily implement it in your production line.

## All you need for SLS depowdering

Easy material change

12

Standard service

## Included:

- Multi PHS station
- Dust-free Sandblaster SLS
- DPT
- Foldable tray
- ATEX Vacuum Cleaner + separator
- STANDARD COMPACT Service Plan for 12 months

# OPEN SET

MORE INFORMATION

## Functions:

- Open environment, ability to modify printing parameters
- Wide range of materials, 3rd party included
- Great for researchers and education

A professional SLS 3D solution with an open environment and access to a wide range of materials. Most often chosen for prototyping, research and education. It includes everything you need for easy and clean post-processing.

## Complete, open solution with access to multiple materials

Easy material change

Open parameters

12
Standard service

Sinterit Studio Advanced

## Included:

- LISA PRO 3D Printer
- Platform
- Steve
- ATEX Vacuum Cleaner + separator
- Dust-free Sandblaster SLS
- Dedicated Powder Tools + Foldable tray
- Sinterit Studio Advanced
- Flight Case
- STANDARD COMPACT Service Plan for 12 month

# SINTERIT STUDIO

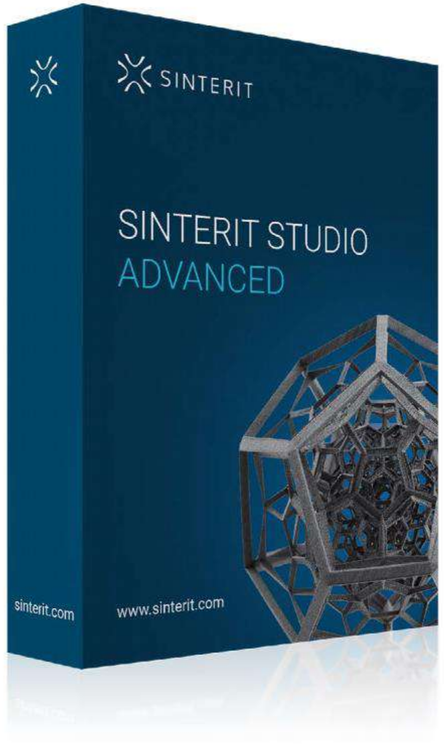
MORE INFORMATION

## BASIC

### Functions:

- Best slicing software on the compact SLS market
- Everything you need to prepare your prints
- Modifying basic parameters unlocked
- Auto-nesting function

Sinterit Studio Basic contains all features you need to place models in printer build volume, prepare print jobs and track progress of the process. It also has a few advanced options like auto nesting and simple printing modifications.




## ADVANCED

### Functions:

- Open parameters – 32 parameters to control
- 10 ready-to-use powder profiles for high-quality prints
- Open powder profiles
- Expert Mode
- Industry 4.0 compatibility

Sinterit Studio Advanced is a professional solution that takes the preparation stage to the next level. It gives users 10 ready-to-use powder profiles, and the ability to modify them and create new ones depending on their needs. The Advanced version also unlocks features that proved essential in professional and industrial environments: like industry 4.0 compatibility and expert mode.

## Slicer, printer panel, printing manager

Predefined profiles

Auto nesting

## Smart tool for professionals

Predefined profiles

Auto packing advanced

Open parameters

Industry 4.0

Expert mode

# SINTERIT SERVICE PLANS

12

**included**

## STANDARD:

**COMPACT SERVICE PLAN for 12 months**

- After sales support for all ordered products in set

  Consumable needed to cover 400h of printing
- No option to extend

12 24

**€3 990 / €5 990**

## PREMIUM:

**COMPACT SERVICE PLAN for 12/ 24 months for all devices in the set!**

- 2 sessions of training BASIC + ADVANCED
- Remote diagnostics

  Consumables to cover 2000 h / 12 months of printing, worth
- LISA X - €1590
- LISA / LISA PRO – €590

# POWDERS

MORE INFORMATION

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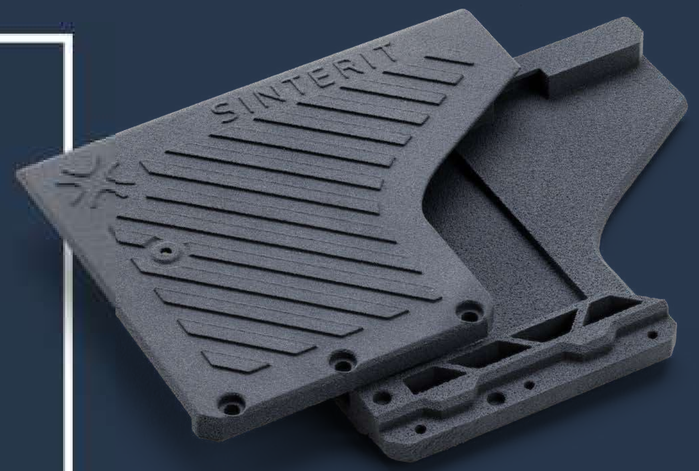
**PBT**
**OPTIMAL**



**Cost effective**

**Electrostatic insulation**

**A material with high rigidity, good sizing, and electronic insulation. Good price level ensures high ROI on printed parts.**

## Functions:

- very good dimensioning accuracy
- biocompatibile
- Excellent mechanical properties
- high chemical resistance

## Applications:

- final parts
- Functional prototypes
- jigs and fixtures
- parts with very good dimensioning

powered by FORWARD AM Innovating Additive Manufacturing | BASF We create chemistry

## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly.

LISA X

NILS 480

MORE INFORMATION

# PA12 INDUSTRIAL

Strenght

**A high resistance nylon 12 with very good dimensioning accuracy of prints. Perfect for functional prototyping, jigs and fixtures and end use parts.**

## Functions:

- very good dimensioning accuracy
- biocompatibile
- excellent mechanical properties
- high chemical resistance

## Applications:

- final parts
- functional prototypes
- jigs and fixtures
- parts with very good dimensioning

## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly

LISA X

NILS 480

MORE INFORMATION

# PA12 SMOOTH

Strenght

Smooth & Details

**A cost effective nylon 12 powder with excellent surface resolution. Perfect for detailed objects and general prototypes.**

## Functions:

- good quality-to-price ratio
- excellent quality print surface and details
- high chemical resistance

## Applications:

- detailed printouts
- complex spatial shapes
- structural or mechanical elements
- functional prototypes or final parts
- chemically resistant objects

## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly

LISA PRO

# POWDERS

MORE INFORMATION

POWERED BY BASF®

## PA11 ONYX

Chemical resistance

Impact resistance

**Bio-derived nylon powder with great mechanical properties and impact strength. Great for elements working in difficult conditions.**

## Functions:

- high mechanical strength
- high impact strength
- dimension stability
- high ductility

## Applications:

- prototypes with great mechanical properties
- snap-fit designs
- end-use parts
- living hinges
- toolings

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## Compatibility:

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LISA PRO

LISA X

# POWDERS

MORE INFORMATION

POWERED BY BASF®
**PA11**
**CF**

High temperature

High performance

## One of the strongest and most versatile materials available on the powder market dedicated to SLS printing technology.

### Functions:

- tensile and flexural strength
- thermal resistance
- impact resistance
- good elongation at break
- good chemical resistance
- good surface quality
- high stiffness

### Applications:

- production maintenence: replacement parts, fixtures, jigs
- automotive: high-performance parts, metal replacement parts
- extreme applications: motorsports, lightweight structures, high temperature

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### Compatibility:

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LISA PRO

LISA X

# POWDERS

MORE INFORMATION

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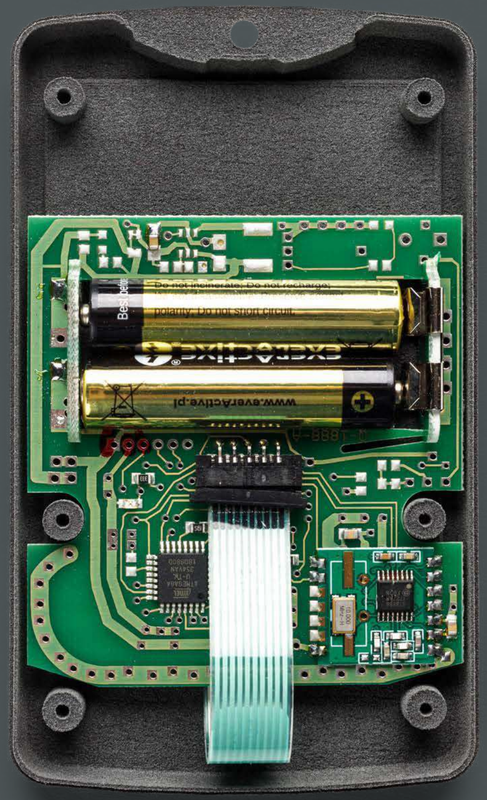
**PA11**
**ESD**



**Bio-sourced nylon material with heat resistance and ESD functionality. Dedicated for electrostatic safe parts for electronic and automotive industries**

## Functions:

- antistatic properties
- better thermal properties
- dimension stability

## Applications:

- tools and testers in electronics production
- electronic casing
- automotive parts
- high-accuracy parts

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## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly

LISA PRO LISA X

Chemical resistance

Electrostatic discharge

# POWDERS

MORE INFORMATION

**PP material with good mechanical properties. Dedicated for prototyping of PP parts, as well as functional parts utilizing chemical resistance, weldability and ductility.**

## Functions:

- great chemical resistance
- low density enabling buoyancy
- recyclability
- suitable for pneumatics
- weldability with other PP parts

## Applications:

- detailed printouts
- complex spatial shapes
- structural or mechanical elements
- functional prototypes or final parts
- chemically resistant objects

## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly

LISA PRO

LISA X

MORE INFORMATION

# FLEXA BLACK

Adjustable hardness

**General purpose elastic TPU material for prototyping. Reasonable elongation with ease of use.**

## Functions:

- flexible prints with increased extensibility
- adjustable hardness
- 100% reusable

## Applications:

- standard rubber items
- prototypes and design
- shock and vibration absorbers
- protectors

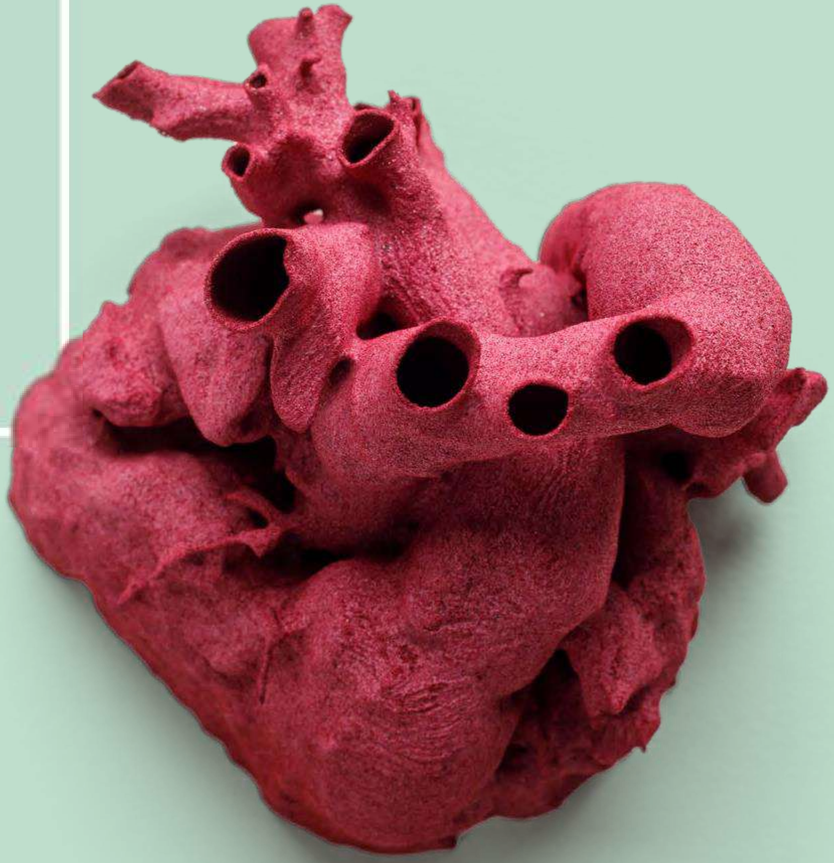
## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly

LISA PRO

MORE INFORMATION

# FLEXA
## BRIGHT



Bright color
Dyeable

**Dedicated rubber for high-elongation parts with possibility to dye into colors.**

## Functions:

- flexible
- dyeable
- brightly colored

## Applications:

- pre-surgery and training printouts in the medical industry
- flexible prototypes
- clothing parts
- mock-ups and models

## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly.

LISA PRO

MORE INFORMATION

# FLEXA
## SOFT

Soft to touch
Low shore hardness

**Soft material that could be used in design, art and simulation of highly soft materials.**

## Functions:

- low Shore hardness
- elastic
- soft to touch

## Applications:

- vibration dampers
- soft elements
- fashion design
- haptic-touch parts

## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly.

LISA PRO

MORE INFORMATION

POWERED BY BASF®
# FLEXA
PERFORMANCE

Excellent mechanical properties

Resistant to repeated bending

**TPU with high strength and flexibility, ideal for use in gaskets, flexible joint covers, vibration dampers and others where the strength of the flexible material is significant.**

## Functions:

- very good tear resistance
- excellent mechanical properties
- resistant to repeated bending
- chemical resistance

## Applications:

- shoe soles and insoles
- elements of flexible covers in vehicles
- seals
- production tools

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## Compatibility:

The presented range of materials and compatibility with selected printers may change. For a binding offer please contact your local distributor or Sinterit directly.

LISA X

SINTERIT

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