

SOLUTIONS CATALOGUE

The **most powerful** 3D technology
accessible to you





Powder and power - that's where creating begins.

With our solutions you can **forget about the limitations** of other 3D technologies. You can create internal moveable and interlocking assemblies. **All in one print** - no supports, no complicated post processing, **no limits**.



Why SLS?

Choosing the right 3D printing methodology for your needs is a difficult task that requires extensive knowledge and experience with various technologies. Each of them has its own advantages and limitations.

There is no single technology that will work for all applications, but there is one that used to be limited to the big industrial systems only, **one that is the most powerful and offers the most possibilities**. Sinterit has developed this one technology into a compact, easy-to-use system, and enabled wide access to SLS technology.

Let's take a closer look at SLS and its advantages:

- **printout quality and strength in all directions (isotropic material)**
- **good dimensional accuracy**
- **sharp details and edges and smooth surfaces**
- **no support structures needed**
- **movable parts in one print with complicated internal geometries**
- **safe & easy postprocessing**
- **many available materials with the LISA PRO Solution - nitrogen chamber**

SLS works best in prototyping, low-volume productions, materials research, and education:

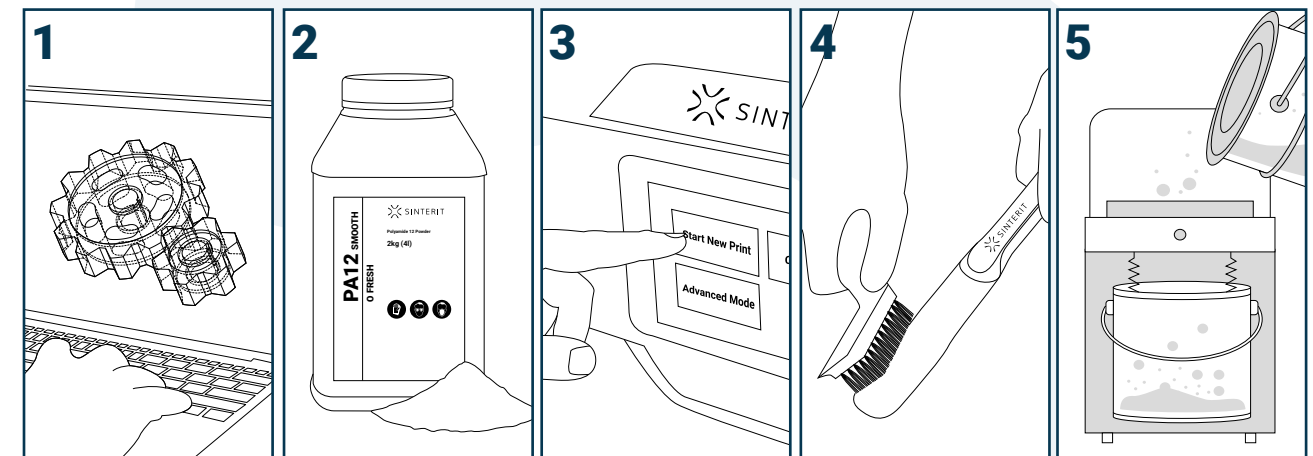
More than 300 of the world's most recognized technical universities have chosen the Lisa printer to provide students and researchers access to SLS technology. Engineers use our printers mainly for rapid prototyping. Many prints are made in the system day by day, spending less than 30 minutes handling the entire process.

System and printing costs are relatively low. For companies that have used injection molding so far, the investment in the Sinterit solution often pays off within 3-6 months. It is difficult to estimate the benefits of the time saved and the freedom to make mistakes and correct them instantly.

Five simple steps to get your printout

It's really easy.

The technology developed by us allows absolutely everyone to start using the printer after a simple training.



1 Prepare your models in Sinterit Studio, our own dedicated software

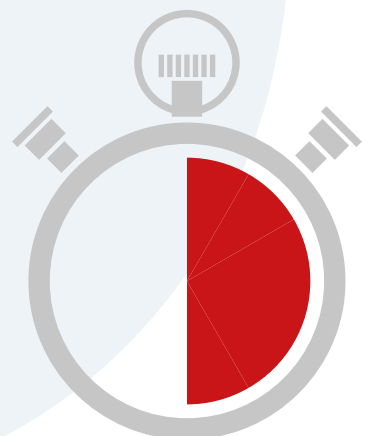
2 Fill the printer with powder

3 Print with either Lisa or Lisa PRO for the best quality, detailed prints

4 Take out your printouts, clean and post-process

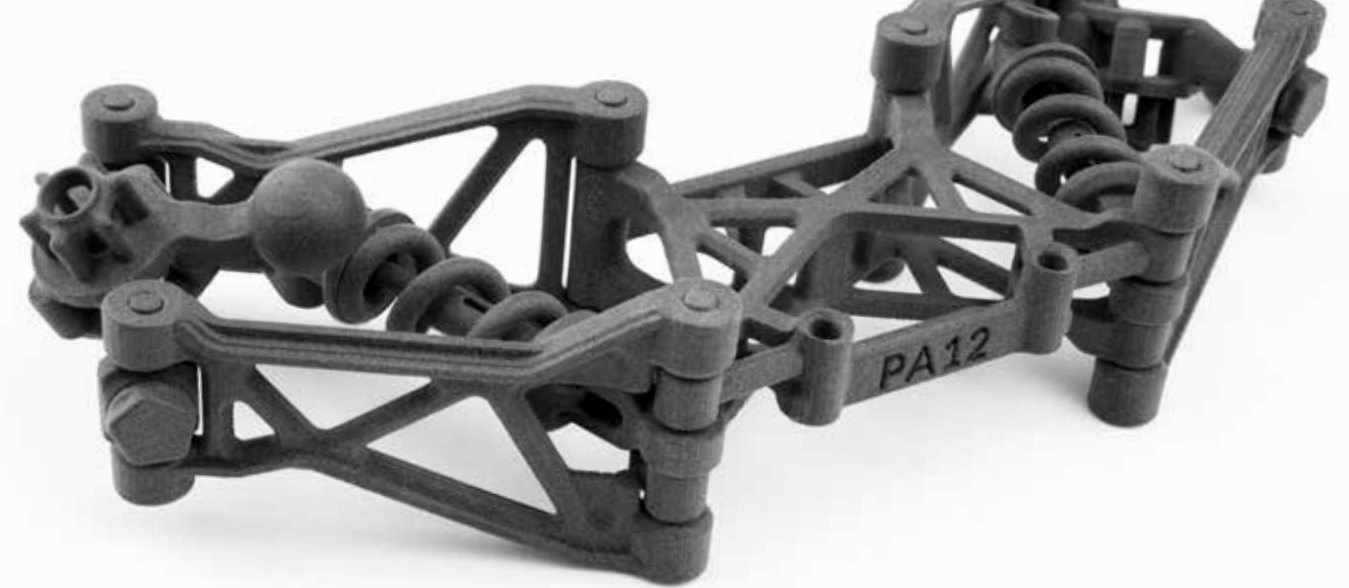
5 Recover the powder for the next prints

Preparation and post-processing takes less than half an hour!





That's why **over 1000** professionals worldwide use our solutions



PROTOTYPING

Client: Sybet
Printer: Sinterit Lisa



Maciej Burzyński from Sybet prototyped with Sinterit Lisa a portable handheld receiver for KGHM, the world leader in copper and silver production. Printing the whole set of radiotelephone parts with PA12 and Flexa Grey costs less than 600 USD and takes about four days.

Comparing it to 40 000 USD for the molds used for prototyping purposes the ROI is achieved during the first project.



It takes about 24-28 hours to print the models we design. I just set the printer one day in the morning, and the next day, in the afternoon print-outs are ready for the tests or for the client approval.

Maciej Burzyński, Sybet

EDUCATION

Client: Technical University of Liberec
Printer: Sinterit Lisa Pro



You can find Sinterit solutions at over 300 universities all over the world!

Researchers and academics from the Technical University of Liberec (Institute for Nanomaterials, Advanced Technologies and Innovation) were among the first Lisa PRO users.

After more than a year they have used compact SLS technology for a large number of different researches and projects.



Lisa PRO is representing available SLS technology. It brings us the possibility to investigate nature-inspired shapes with students interested in biology.

Jan Koprnický,
Zoltán Dolenský,
Jakub Macháček

RESEARCH

Client: AGH Space Systems
Printer: Sinterit Lisa Pro



Students from AGH Space Systems were developing a hybrid rocket, and it was critical to ensure that the Fuel and oxidizer do not react before launch.

SLS printing was proposed because of the mechanical and chemical stability of the parts, including resistance to paraffin fuels.



Due to resolution of Sinterit Lisa PRO SLS technology ranging 0.1 mm, dense network of filaments was printed, including such details as spherical contact points, preventing from stress intensification and brittle fracture of load-bearing filaments.

Dominik Zdybał,
AGH Space Systems Team

FINAL PARTS

Client: Scale Print
Printer: Sinterit Lisa



Stefan Radau was a managing director in a big interior outfitting company. After almost 30 years he left to start SCALE PRINT.

In his newly founded company, Stefan manufactures parts for models that cannot be purchased on the market.

Most of them are printed with Lisa, and Stefan Radau is known for making the most of the compact SLS 3D printer.



I have printed with Lisa for more than 1600 hours, filling the printing area to the limit 60 times. In the image, you can see how many elements could fit in Sinterit Lisa at once. And the printouts confirms the quality of it.

Stefan Radau



So you can simply build **Your solution** based on modules



We started with a single printer, as a response for customer feedback, our offer grew organically to make the end-to-end solution seamless. Learn more about our solutions and find out which one is perfect for you.

MODULES

PRINTING

SLS 3D PRINTERS suitable for your budget and your needs.



POWDER MANAGEMENT

Devices that keep whole process clean, save and powder efficient.



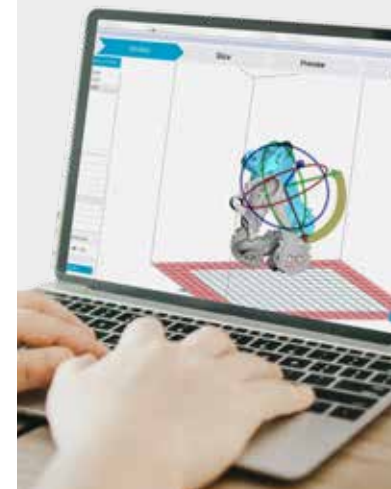
POST PROCESSING

Additional devices that make it easy and satisfying.



SOFTWARE

Tool to manage your works easily and control process in simple way.



POWDERS

7 different materials with the outstanding quality and best parameters.



SERVICES

Our training, warranty and client care services.





LISA BASIC solution

This easy-to-use entry-level set is the best way to introduce everyone to the SLS printing technology at an accessible price.

- LISA 3D printer
- Sinterit Studio Software
- Powder tools
- Sieve
- Sandblaster



This entry-level set is the best way to introduce SLS printing technology at an accessible price.

Janusz Wroblewski,
GM/Sales Director,
Sinterit





PROFESSIONAL solution

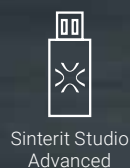
The most advanced and compact set which takes the whole process to a new level. Dedicated to convenient, frequent, clean work and effective powder management.

- LISA PRO 3D printer
- Platform
- Dedicated tools
- ATEX or INTERTEK vacuum cleaner
- PHS
- Sandblaster XL
- Sinterit Studio Advanced Software



All the benefits of a professional-quality SLS system are at reach with this complete solution. All aspects of the operation, printing, powder recycling, and post-processing have never been so easy, convenient, and clean.

Maxime Polesello, CEO of Sinterit





It was the best choice for me to fulfill all requirements: possibility to print complex structures, price, speed, reliability.

Professor Dr.Ing. Rigo Herold, Zwickau University in Germany

Lisa

Entry-level SLS 3D printer

Lisa revolutionized SLS technology becoming the first compact and most affordable printer in that segment. It even opened an entirely new one called “desktop SLS”. Lisa is a printer that every small or medium company can afford. Outstanding precision and compact size makes it a choice for users who would like to print like a pro but don't have a dedicated space for an SLS 3D printer.



Max. print volume

110 x 160 x 145 mm (4.3 x 5.9 x 5.7 in)

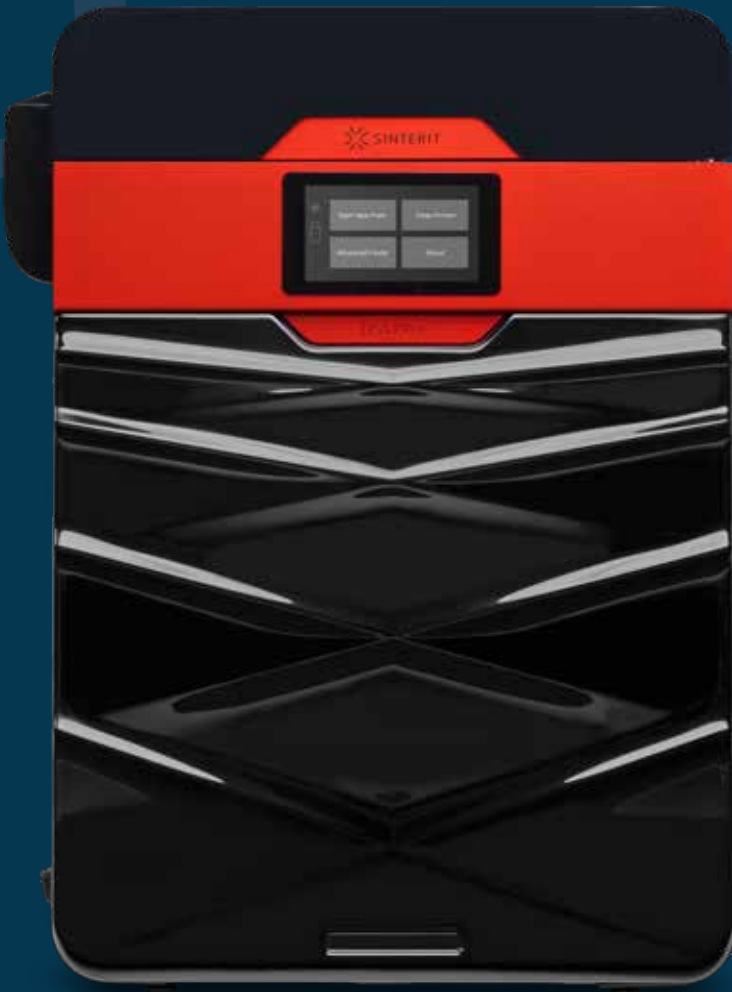
Parameters

Print bed size	150 x 200 x 150 mm (5.9 x 7.9 x 5.9 in)
XY accuracy	from 0.05 mm (0.002 in)
Layer height Z (min - max)	0.075 - 0.175 mm (0.003 - 0.007 in)
Nitrogen chamber	No
Laser system	IR Laser Diode 5 W ; λ =808 nm
Software included	Sinterit Studio
Dimensions	620 x 400 x 660 mm (24.4 x 15.8 x 26.0 in)
Weight	44 kg (96.8 lbs)
Operating Voltage	220-240 V AC, 50/60 Hz 100-130 V AC, 50/60 Hz
Average power consumption	0.9 kW

Lisa PRO

Advanced SLS 3D printer

Lisa PRO is the heart of our SLS 3D Printing Solution. It is the most advanced and accessible small SLS 3D printer. Thanks to open parameters and built-in nitrogen chamber Lisa PRO attracts academics and researchers, giving them possibilities to blaze a trail. Together with large build volume it makes Lisa PRO a perfect choice for research, education, functional prototyping or even low volume production.



Max. print volume

110 x 160 x 245 mm (4.3 x 5.9 x 9.6 in)

Parameters

Print bed size	150 x 200 x 260 mm (5.9 x 7.9 x 10.2 in)
XY accuracy	from 0.05 mm (0.002 in)
Layer height Z (min - max)	0.075 - 0.175 mm (0.003 - 0.007 in)
Nitrogen chamber	Built-in
Laser system	IR Laser Diode 5 W ; λ =808 nm
Software included	Sinterit Studio Open
Dimensions	690 x 500 x 880 mm (27.1 x 19.7 x 34.6 in)
Weight	90.0 kg (198 lbs)
Operating Voltage	220-240 V AC, 50/60 Hz 100-130 V AC, 50/60 Hz
Average power consumption	1.1 kW



Sinterit Lisa PRO is the most accessible device to produce precise constraint-free solutions to modern problems.

Maurice Briggs, Lazerthrust



PHS

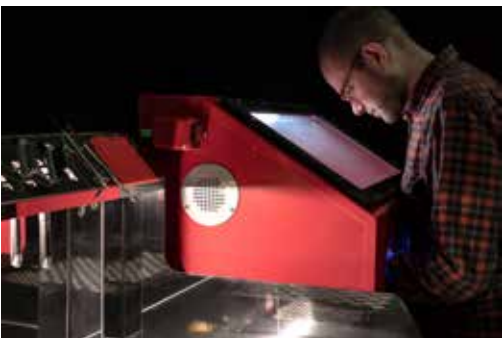
Powder Handling Station

Supporting device designed to make post-processing and powder recovery as clean and efficient as possible.

- **All processes in one place:** cleaning the printer & work area, initial and precise printouts depowdering, sieving & powder refreshing
- **Clever workspace** - an ergonomic and user friendly solution compatible with both Lisa and Lisa PRO
- **Tools close to you** - everything you need is always at hand
- **Easy depowdering** in 5 simple steps
- **Superhero** - not just for one printer!

Parameters

Powder capacity	12 l (3.17 gal)
Operating Voltage	110-240 [V] AC, 50-60 [Hz] Power Consumption 80 [W]
Labour	25 min for the whole process
Material change over	~ 1 h
Set contents	Depowdering module Sieving module Shelf for sandblaster Hoses, connectors & inlets Ear protection Storage place for depowdering tools LED lighting
Dimensions	1000 x 700 x 1800 mm (39.4 x 27.6 x 70.9 in)
Weight	160 kg (352.7 lbs)
Space installation	1700 x 2200 x 1800 mm (66.9 x 86.6 x 70.9 in)



The most powerful 3D technology accessible to you



Dedicated Powder Tools

No mess, no waste

Our powder tools cover the whole printing process, from the initial startup, through taking out the printouts, postprocessing, and cleaning, both the printouts and workspace.



ATEX / Intertek Vacuum Cleaner

Clean and easy

A perfect solution for efficient collecting and cleaning unsintered powder. For safe and effective work with SLS printers you need a device with ATEX or NRTL (ETL Intertek listed) certificate. The one we put into our SLS 3D printing solution is not only clean, but also safe. Sinterit Vacuum cleaners are industrial explosion-proof vacuums, manufactured in order to avoid any risk of ignition. Along with the cyclone powder separator it will make your workflow much faster and easier.

Parameters

Suction inlet	50 mm
Noise level (EN ISO 3744)	79.6 dB (A)
Capacity of collection unit	40 l (vacuum), 12 l (separator)
Filter type	Star, M class filtration
Dimensions	440 x 420 x 780 mm (17.3 x 16.5 x 30.7 in)
Weight	vacuum: 21.5 kg (47.3 lbs), separator: 5 kg (11 lbs)
Certificates	ATEX Z22 / NRTL D2C2 (ETL Intertek listed)



Powder Sieve

Easy reuse

Powder Sieve is a game-changer for powder maintenance. With this device you can sieve unsintered powder and prepare it for another print. It is fast, as typical sieving operation takes only 18 minutes and is easy to use. Just one button to press.



Parameters

Powder capacity	5 l
Sieving time	18 min
Dimensions	330 x 340 x 600 mm (13.0 x 13.4 x 23.6 in)
Weight	22.5 kg (49.5 lbs)
Operating Voltage	12 V / 2 A
Power consumption	24 W





Sandblaster

Perfectly smooth surface

Post-processing of SLS printed parts is not a big deal. You don't need to remove any supports, neither mechanically nor chemically. All you need to do is to get rid of spare powder connected to your printed parts. The best and cleanest method is to use compressed air and a sandblaster. With this device you will clean and polish the surfaces.



Sandblaster XL

Comfortable and precise post processing

A bigger chamber allows to work with larger printouts or batches of small printouts series. In Sandblaster XL you can choose between a handheld blaster and a fixed nozzle, so you can use both hands to manipulate the object. Dedicated for SLS and compatible with Lisa PRO.

	Sandblaster	Sandblaster XL
Type	Manual	Manual
Working area	410 x 310 x 200 mm (16.1 x 12.2 x 7.9 in)	675 x 450 x 415 mm (26.6 x 17.7 x 16.3 in)
Max. pressure	0.86 MPa / 8.6 bar / 125 psi	0.86 MPa / 8.6 bar / 125 psi
Coupling	DN 7.2	DN 7.2
Dimensions	495 x 390 x 410 mm (19.5 x 15.4 x 16.1 in)	760 x 500 x 720 mm (29.9 x 19.7 x 28.3 in)
Weight	11.5 kg (25.3 lbs)	28 kg (61.6 lbs)
Illumination		
Power consumption	6 W	6 W
Operating Voltage	230 / 110 V AC, 50/60 Hz	230 / 110 V AC, 50/60 Hz
Abrasive material		
Grain size	Glass balls 0.2 mm	Glass balls 0.2 mm
Required compressor parameters		
Air flow	300 l/min	290 l/min
Pressure	0.60 - 0.86 MPa / 6 - 8.6 bar / 87 - 125 psi	5.0 - 8.6 bar (72.5 – 125.0 psi)



After putting your part in the machine, you slip your hands through a huge pair of heavy-duty gloves, step on the floor pedal, and abrasive material is whipped out of a special nozzle. This post-processing step helps remove additional loose powder and smoothes the part's surface.

Ludvine Cherdo,
Head of Content
Aniwaa

Sinterit Studio

Dedicated software for all your needs

Sinterit Studio is an easy to use, intuitive software which takes users step-by-step through the whole SLS 3D printing process.

From choosing the printer, powder type, and layer height, to arranging models in the printing area, slicing them and finally, preparing a file that is ready to be printed.

Sinterit Studio makes it simple to monitor the printing process. While it is connected via WiFi with all of the user's printers, it is easy to check the surface temperature, or time to finish, and of course, there is a live view from the printer's camera.

Sinterit Studio is available in four versions, which gives a more advanced users a possibility to change parameters of the printer.



SLS technology gives you an opportunity to achieve the most detailed and smooth surfaces, but you need to know how to arrange models. Sinterit Studio is more than a tool. It helps me to arrange models, based on my knowledge and the possibilities of SLS 3D printing.

Andrzej Krzanowski,
3D Printing Specialist,
Sinterit

Choose your version of Sinterit Studio:

Supported materials	Sinterit Studio	Sinterit Studio OPEN	Sinterit Studio PROFILES	Sinterit Studio ADVANCED
PA12 Smooth	✓	✓	✓	✓
PA11 Onyx		✓	✓	✓
PA11 ESD				✓
Flexa Grey	✓	✓	✓	✓
Flexa Soft	-	-	✓	✓
Flexa Bright	-	-	✓	✓
TPE	-	-	✓	✓
Open Parameters	-	✓	-	✓



Supported file types:
STL, OBJ, 3DS, FBX,
DAE, 3MF



Model arranging
environment



Printer's status
monitoring



Estimating the
amount of needed
powder



Model slicing

Powders

To address all possible applications

With 7 powders in the offer and the possibility to use 3rd party materials thanks to open parameters, we made our portfolio for compact format SLS systems the broadest on the market. Our materials enable users to produce mechanically superior prototypes and end-use parts.



PA12 Smooth

A cost effective, rigid polyamide 12 with excellent surface resolution.



Applications

- Rapid prototyping
- Detailed objects
- Functional parts of highest quality
- Low volume production of low stress parts
- Working mechanism

Functions

- High details
- Smooth Surface
- High chemical resistance
- Regular mechanical properties



PA11 Onyx

Nylon material with great mechanical and impact resistance for functional parts.



Applications

- Final prototypes with great mechanical properties
- Snap-fit designs
- End-use parts
- Living hinges
- Jigs, fixtures and tooling

Functions

- High mechanical strength
- High toughness (impact strength)
- Dimension stability
- High ductility
- Bio-sourced (castor oil)



TPE

Elastic material for air/ watertight applications.



Applications

- Hoses, gaskets
- Skin-touch applications
- Water/airtight elements
- Rubber-like functional prototypes

Functions

- Good elongation
- Ater-airtight after sealing with Sinterit Sealer
- Certifiable for skin-touch*



Flexa Grey

General purpose elastic TPU material for prototyping.



Applications

- Easy elastic parts
- Vibrations dampers
- General prototyping of elastic parts

Functions

- Easy to proces rubber
- Adjustable hardness (set up in Sinterit Studio)



Flexa Soft

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



Applications

- Haptic-touch parts
- Vibration dampers
- Soft elements
- Fashion design

Functions

- Low Shore hardness
- Elasticity



Flexa Bright

A functional rubber material that can be dyed to other colors.



Applications

- Visual aids for medical industry
- Elastic printouts with higher mechanical resistance
- High-elongation parts
- Cosmetic prototypes

Functions

- High mechanical properties as for TPU
- Ability to dye
- High-elongation
- Bright colour



PA11 ESD

Specialized PA11 material with heat resistance and ESD functionality.



Applications

- Electronic casing
- Test fixtures for electronics
- Fixtures for assembly of electronics
- Atex connectors and parts
- Fixtures for electrostatic dissipation
- Automotive parts
- High-accuracy parts

Functions

- ESD safe material
- Better thermal properties
- Dimension stability
- Bio-sourced from castrol oil



Our services

Because we care.

We believe that services must always be an integral part of our offer. The customer experience is always the most important for us.

You have already seen this approach in the way we design our products.

The same attitude is visible in our services. At every stage of the customer's journey with our products, our team offers full support.

ONLINE Training 3h

Dedicated online training session for your team. Direct contact with the trainer from our support team is an option to train several people at once.

EXTENDED Warranty 1 year

A service contract that extends the standard warranty coverage for the printer repair or replacement of parts for another 1 year.

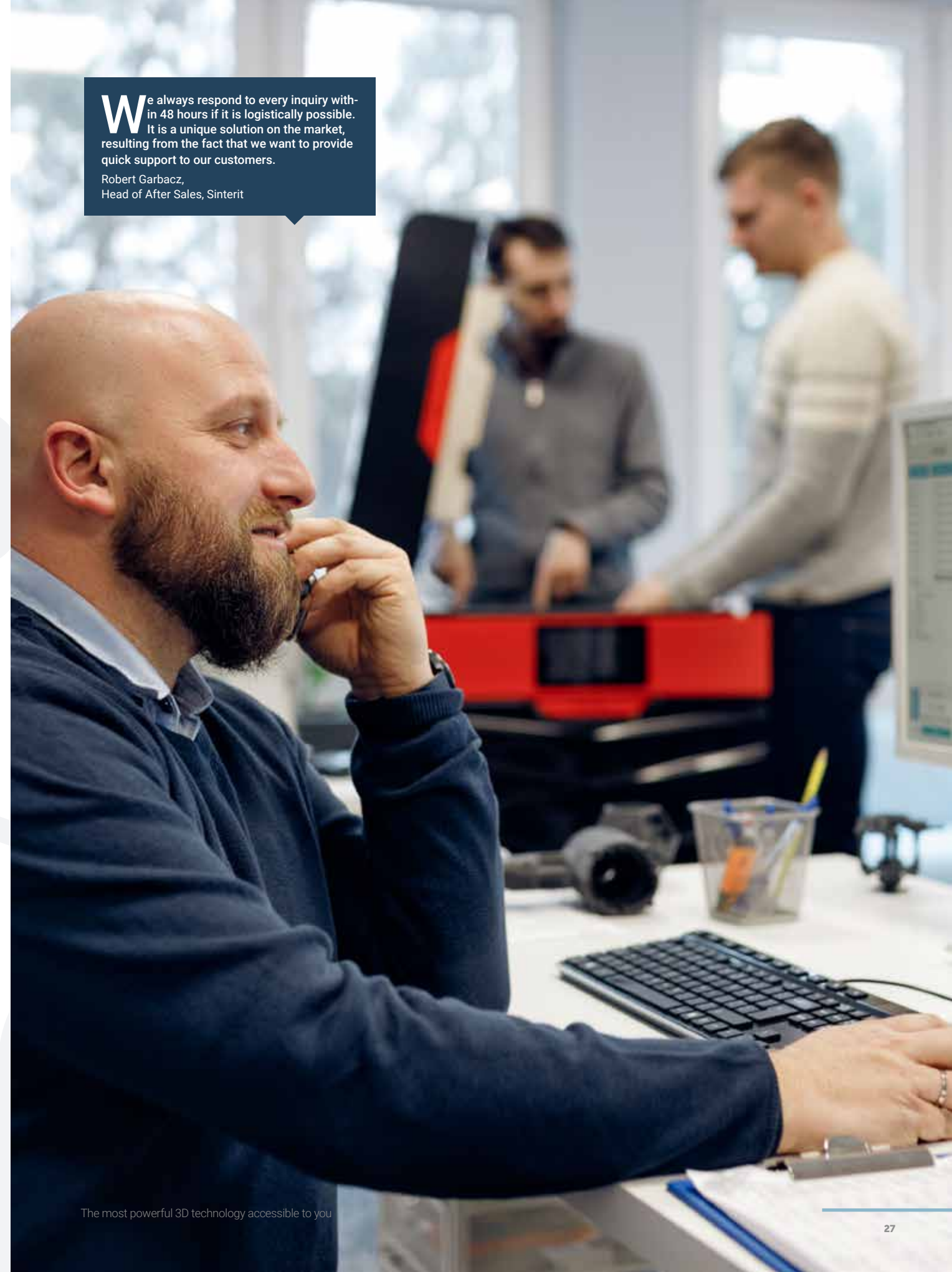
CARE PLAN

During the time of repair, we assign equivalent printing capabilities for you and deliver the printouts without additional costs. Care Plan is available in all EU countries only.



We always respond to every inquiry within 48 hours if it is logistically possible. It is a unique solution on the market, resulting from the fact that we want to provide quick support to our customers.

Robert Garbacz,
Head of After Sales, Sinterit



The most powerful 3D technology accessible to you



Creativity empowered in an easy to use solution.

Engineer, scientist, designer or any other that is looking for more in 3D printing. SLS technology covers almost all applications - prototyping, movable assemblies, concept models, molds, end use parts, jigs and many more ...



Verify

the legendary quality
of SLS printouts



or

**print your design
in our service center**

3dservices.sinterit.com

we will provide all materials and calculations you may need to show effectivity of investment

and

**contact our applications engineers,
sales team or trained distributors to
talk about your needs**

Build

solution that suits you
best with the help

Requirements?

TRAINED STAFF?

**We made it easy
to use for everyone
after short training.**





Find a distributor in your country:
www.sinterit.com/our-distributors/

If you have any questions, simply ask us at:
contact@sinterit.com or call +48 570 967 854

How it works?

Visit our page, order a free sample,
or simply watch us on YT

www.sinterit.com  [sinterit.com/yt/](https://www.youtube.com/sinterit)

In **2014** we created the 1st ever compact SLS printer - **LISA**

Since then our easy to use and affordable solutions are used by
thousands of users every day in over 40 countries.

Now we are happy to deliver most reliable SLS printers with the quality
of printouts rated as industrial.

Our solutions produced in the EU to the highest quality standards.

