

# The new way of manufacturing.

3D print for all phases of the industrial process.  
Discover the application sectors.



# 3D printing for manufacturing applications.

DWS produces **3D printers, software and materials** completely in-house.

## **XPRO SL**

High-productivity 3D printer with **500mm Z axis**.

It is able to satisfy all the applications of accessories, fashion design, footwear, luxury leather industry and more.

## **XPRO S**

High productivity and precision, joined by a wide range of materials, make this printer versatile and suitable for almost any kind of industrial application.

## **XPRO Q**

It is developed for big production volumes, it is the ideal solution for large scale processes requiring maximum precision and resolution.

**4 Solid State BluEdge® laser sources.**

## **DW 029 XC**

Rapid production system developed for medium-high production volumes. It grants high speed and precision.





## 3D PRINTING FOR THE FOOTWEAR INDUSTRY

The world of footwear has various needs ranging from the creation of rigid aesthetic **maquettes** to the production of **moulds** for **soles** and **insoles**, from the direct creation of soles to that of the **complete shoe**.

### INVICTA DIGITAL SKETCH



#### Test your idea.

Invicta Digital Sketch is a material for **rapid prototyping** of **aesthetics draft**.

### THERMA DM 500



#### Moulds for footwear industry.

Therma DM 500 is a material developed for the realization of **injection mouldings** for plastic material.

- Maximum temperature: **220°**
- Closing pressure: **90bar**

## FLEXA DIGITAL TPU: FROM FIT TESTS TO PRE-SERIES

Flexa Digital TPU is a functional material useful for **fit tests**, **fashion shows**, the **pre-series** up to the production of the **entire series**.

**25**

Tensile Modulus (Mpa)

**300**

Elongation %

**A75**

Shore Hardness





## FUNCTIONALITY AND AESTHETICS FOR EYEWEAR INDUSTRY

Eyewear segment requires precision and attention to detail, materials transparency and flexibility. This market is the perfect union of **functionality and aesthetics** both for the frames and for every detail of the eyewear itself.



## MATERIALS

Vitra DL 375, Irix V and Invicta DL406 are material that answer at the needs of this market.

## INDIRECT MANUFACTURING - EYEWEAR MOULDS

Therma DM 500 material is developed for the realization of **injection mouldings** for plastic material, **resistant to over 200 cycles**.

**220°**

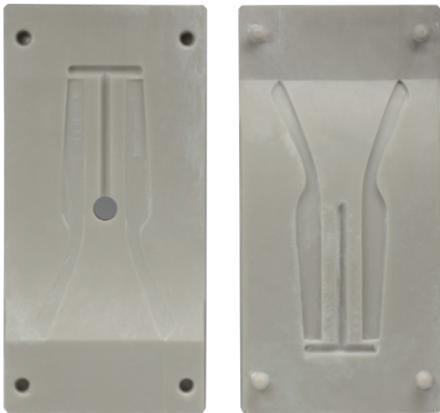
Maximum temperature

**70-160**

Flexural  
Strength (Mpa)

**D90**

Shore Hardness





### 3D PRINTING FOR THE FASHION INDUSTRY

In fashion, accessories complete the outfit and the overall look. For this sector, 3D printing answers to the production of: **bags, umbrellas, wallets, belts, suspenders, necklaces and bracelets.**



### RIGID AND FLEXIBLE MATERIALS

Rigid and semi-rigid materials, suitable for the production of **paintable and treatable fashion accessories.** Flexa Digital TPU elastic material, 300% elongation, suitable for the production of flexible parts.

## FUSIA 445



### Castable materials

**FUSIA 445** is a material suitable for the creation of **fashion objects to be casted** in various metal alloys.

### XCLUSTER CHAIN

It is a **patented technology** that makes it possible to 3D print pre-moulded **chains without any welding**.

It uses the **lost-wax investment casting method**, designing and printing the cluster with FUSIA 445 castable resin.

**Production** thus becomes **fully digital** and breaks down creative limits as well as optimising costs and production times.

The technology is suitable for the production of chains both in the fashion accessories sector, such as **chains for bags**, and in the **jewellery sector** for the production of **bracelets** in all types of caratings.





## QUICK CUSTOMIZATION FOR THE AUTOMOTIVE SEGMENT

3D printing meets the needs of the automotive industry. **Soft touch parts, customized parts, transparency**, are all applications that distinguish one vehicle from another.

### INVICTA DIGITAL SKETCH



#### Fast aesthetic draft

Invicta Digital Sketch allows the creation of **aesthetic and quick drafts** useful for the executive design of the piece.

### INVICTA



#### Functionals rigids parts

Invicta line materials allow the creation of **functional rigid parts**.

## FLEXA DIGITAL TPU: SOFT-TOUCH IN 3D PRINTING

Flexa Digital TPU is a functional material to produce in 3D printing all soft touch features present in a motor vehicle.

**25**

Tensile Modulus (Mpa)

**300**

Elongation %

**A75**

Shore Hardness



## GASKETS MANUFACTURING IN 3D PRINTING

Gaskets are constantly subjected to stress especially in **compression** and **decompression**, for example every time a door or window is opened and closed. They must therefore be made of **soft, elastic** and **adequately resistant** materials.



**Flexa Digital TPU** is a functional material suitable for the production of **insulating and sound-absorbing gaskets**.

GASKETS

**25**

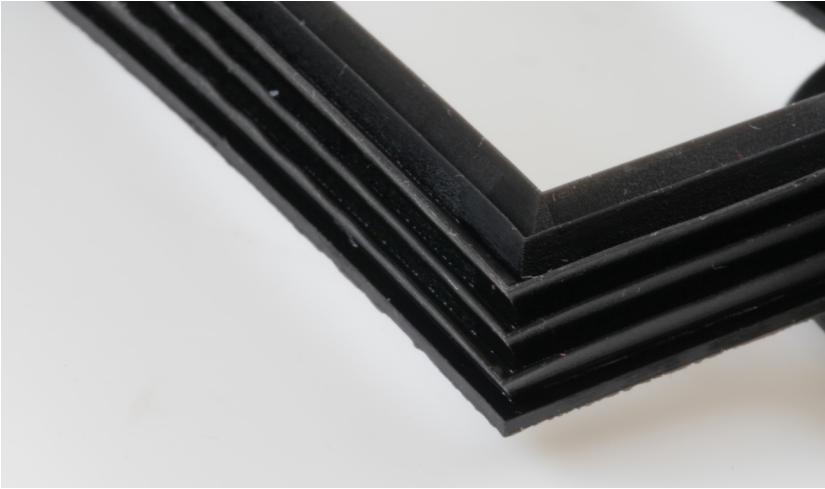
Tensile Modulus (Mpa)

**300**

Elongation %

**A75**

Shore Hardness



## MOULDS

### MOULDS FOR INJECTION OF PLASTIC MATERIALS

3D printing diminishes the time required for the creation of **moulds** for the production of **soles, temples for glasses** or any other object produced by injection of plastic materials.



**THERMA DM 500**

**220°**

Max. temperature

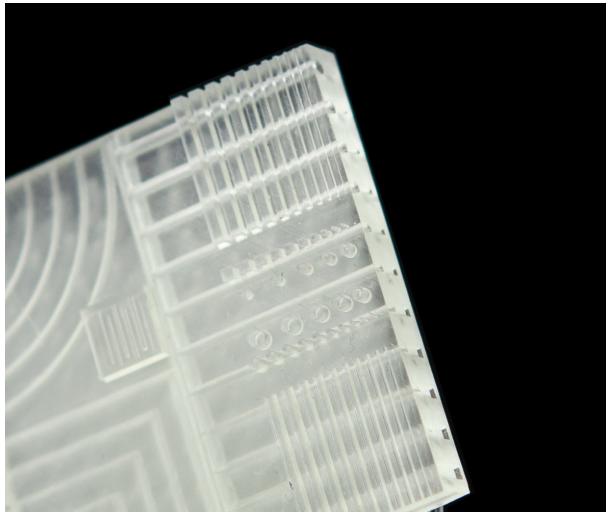
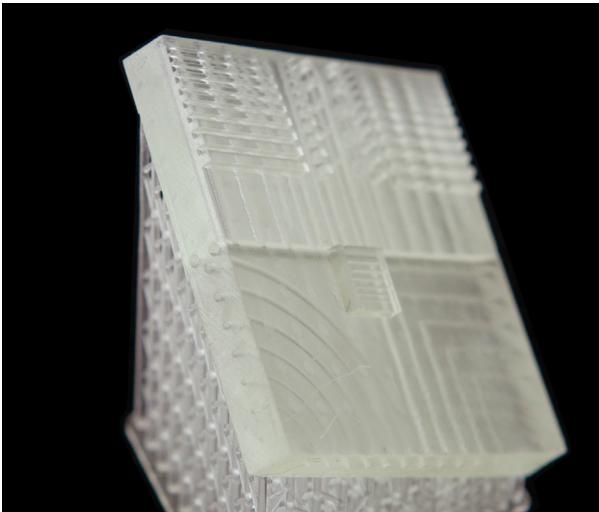
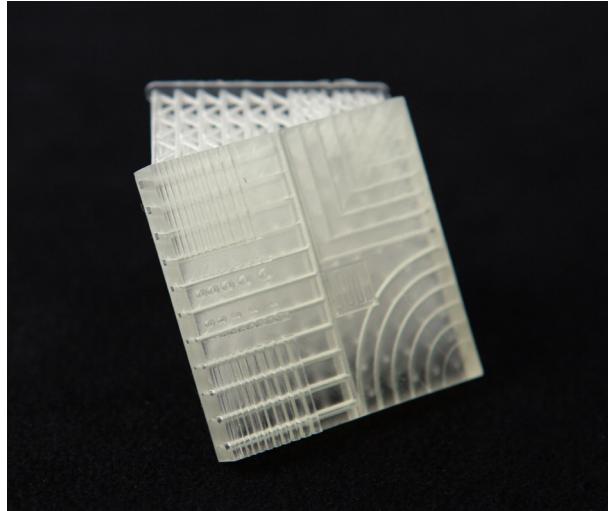
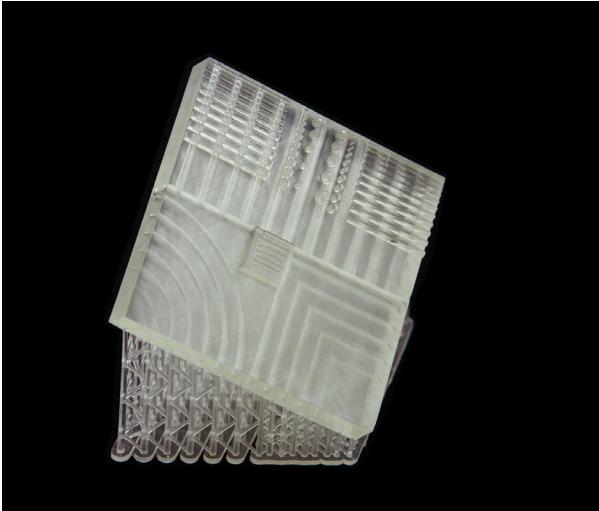
**D90**

Shore Hardness

## 3D PRINTING FOR THE MICROFLUIDICS SECTOR

Microfluidics is the science of systems that process **small quantities of liquids**, using **channels** that are tens or hundreds of micrometers in size.

Thanks to the **very high printing precision** of DWS 3D printers and to the new material purposely developed, it is possible to create specimens to facilitate the study and tests useful for this sector.



### PROTOTYPING AND SMALL SERIES

The **XFAB** line and **DW028XL** are designed to combine three highly required needs: **extreme ease of use**, **precision** and **economic advantage**.

Research centres, universities, specialist schools and production institutions use these 3D printers for prototyping or small production series.



**DW 028 XL**

Working area of **100x100x100mm** (X, Y, Z), high precision laser system for extremely fine detail.

**XFAB 2500**

Circular working area of **180x180mm** (Ø, Z), dedicated cartridges with different resins designed for prototyping.



**XFAB 3500**

Working area of **160x160x180mm** (X, Y, Z), dedicated cartridges with different resins designed for prototyping.





[www.dwssystems.com](http://www.dwssystems.com)