



BASF
We create chemistry

Protective Face Mask

Industry Partner:

Spentys

Material used:

Ultrafuse® PET CF15

Technology applied:

Fused Filament Fabrication

The result:

Individualized face mask delivering high protection and support under the toughest conditions



Material Properties:



Good rigidity and strong resistance to shocks thanks to 15% carbon fibers



Smooth surface finishing for ultimate comfort



Low moisture uptake allows easy handling in everyday life



Easy and fast processability



20+ professional sports players highly satisfied with Spentys' face masks



SPENTYS
PROFESSIONAL SPORTSWEAR





Enabling Additive Manufacturing for Orthotics & Prosthetics





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Arm Orthosis

Industry Partner:

Spentys

Material used:

Ultracur3D® ST 45

Technology applied:

Digital Light Processing

The result:

Outstandingly tough arm orthosis providing smooth surface finishing, 3D printable at highest speed

Material Properties:



Excellent combination of high strength, long-term toughness, and impact resistance.



Outstanding surface finishing



High printing speed



SPENTYS
REINVENTING ORTHOPEDICS





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Prosthetic Cover

Industry Partner:

Proteo

Material used:

Ultrasint® TPU01,
Ultrasint® PA11

Technology applied:

Powder Bed Fusion
(Multi Jet Fusion)

The result:

Prosthetic cover for lower limb amputees with Ultrasint® TPU01 for flexible inner socket and strong Ultrasint® PA11 for a durable and reliable outer socket

Material Properties:



High elasticity and rebound for inner socket printed with Ultrasint® TPU01



Exceptional high toughness for outer socket printed with Ultrasint® PA11



Bio-derived material thanks to Ultrasint® PA11 castor oil basis

PROTEO





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Hand Prosthesis

- Industry Partner:** Victoria Hand Project
- Material used:** Ultrafuse® PLA
- Technology applied:** Fused Filament Fabrication
- The result:** Individualized hand prosthetic made available for amputees in developing countries, 3D printed via a network of 3D printing centers

Material Properties:



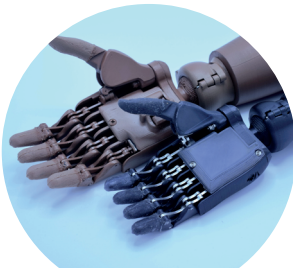
Easy and fast processability with reliably high success rate



Glossy feel available in a broad color palette



Plant-based and compostable





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