3DESCU MATERIALS CATALOGUE · 2026

EVERY POLYMER WE RUN, EVERY PRICE YOU'LL BE CHARGED

FDM filaments and SLA resins - *direct from the factory.*

Twenty-seven FDM polymers and five SLA resins, all in stock at our Târgu-Jiu facility. Below is every material we run today, with indicative pricing per gram, per cm³, and a sample part. If a polymer you need isn't on this list, ask - for materials our fleet supports, our team returns a confirmed quote with any adjustments to price, lead time, or printability within 24 business hours.

27	5	4.66	€20
FDM FILAMENTS IN STOCK	SLA RESINS IN STOCK	/ 5 ★ FROM 203 RATINGS	ORDER MINIMUM

HOW WE GOT FROM 3 PRINTERS TO 190

Built deliberately - *not raised, not pivoted.*

3Descu started in the second year of my Master's in Business Administration & Entrepreneurship at Universitatea "Constantin Brâncuşi" in Târgu-Jiu. An EU grant programme opened that year; I applied with the 3D printing business plan I'd been sketching, took **first place across the entire county**, and received a **€60,000 grant**.

We started with **three FDM printers** in 2022. Today we run **190 industrial machines** (180 FDM + 10 SLA) through two facility relocations, four consecutive years of growth, and thousands of orders shipped across the EU. 3Descu is now **one of Eastern Europe's largest FDM 3D printing factories**, with the roadmap to expand further over the next two years.

The operational discipline that makes the per-cm³ rates on this page achievable doesn't come from cutting corners. My day-time role is **Director of AI & Business Automation at M.A. Whately & Co**, where I design end-to-end automation frameworks for client operations. Every workflow at 3Descu - quote intake, engineering review, slicer assignment, dimensional inspection, packing, shipping - has been engineered against the same playbook. That's the actual mechanic behind being up to 40 % cheaper than a marketplace at the same ISO 9001 quality standard: not corner-cutting, just removing the manual steps a marketplace's 25-40 % commission has to fund.

> - Adrian Căpraru
> Founder & 3D Specialist · linkedin.com/in/adriancapraru27

THE GROWTH TIMELINE

2022	**Founded · 3 printers** Won county-level EU grant (1st place), €60k funding, first facility opens.
2023	**First scale-up · ISO 9001:2015** Certified manufacturer status. Fleet expansion. First B2B accounts opened in DE, FR, NL.
2024	**Second facility · Excellence Partner** Relocated to current Târgu-Jiu floor. Earned Excellence Partner status on industry platforms. Fleet crosses 100 machines.
2026	**190 machines · 4.66 / 5 ★** Among Eastern Europe's largest FDM 3D printing factories. 203 verified ratings. 10+ EU countries served. Roadmap for ~30 additional FDM units in 2026-2027.

WHY BUY DIRECTLY FROM THE FACTORY

Same legal protection as platforms. *Up to 40 % less to your invoice.*

3Descu is the ISO 9001-certified factory that platforms route work to. Order direct, you skip the commission layer - same quality system, same contractual protection, same review history (3+ years, 203 verified ratings, 4.66 / 5), better price.

Build volume that handles the brief

From a 5 mm bracket to a 500 mm enclosure

Up to **500 × 500 × 500 mm** on our large-format FDM line. For parts larger than that we split-and-bond at clean seams - done on enclosures up to 800 mm tall.

Throughput: 190 industrial machines in parallel. A 60-part run finishes in 14 wall-clock hours when capacity is available.

ISO 9001:2015 quality system

Documented process control on every job

Every order runs against a documented production procedure tied to the machine + material combination. Externally audited annually. Calibration logs maintained quarterly. Non-conformance tracked with root-cause analysis on every quality complaint.

QC report: dimensional inspection record + material lot traceability available on request for any order over €500.

Photos + status at every stage

You see the part before it ships

Photo at print start, mid-print, and post-processing. Stage tracker (Queued → Slicing → Printing → Post-processing → Shipped) with ETA per stage. Email per stage transition. The transparency platforms don't ship.

Optional first step: 15-minute live video factory tour with our founder - see the actual machine that will run your job, before you place the order.

Contractual protection in writing

Custom Manufacturing Service Contract on every order > €500

Custom Manufacturing Service Contract on every order over €500. Smaller orders run under our standard Terms of Manufacture at 3descu.com/terms. Default tolerance ±0.5 mm on both FDM and SLA; tighter ranges agreed in writing for the specific Order Confirmation. 10-business-day Inspection Window for conformity claims, 60-day latent-defect window, free reprint or refund per Article 5.5 of the Contract. Mutual NDA signed within 1 business hour of request.

GDPR: files encrypted at rest in EU (Frankfurt), 90-day default retention, deletable on request, audit log available.

THE HEADLINE NUMBER

Direct-factory orders save *up to 40 %* against equivalent platform-routed quotes - same ISO 9001 quality, same legal protection, no commission layer.

If you're already sourcing 3D-printed parts through a platform, send us your last quote - we'll match the spec and benchmark the saving on the same brief.

Send a benchmark quote

DIRECT FACTORY VS INDUSTRY PLATFORMS

Every safety guarantee. *More benefits. Up to 40 % less.*

Procurement teams worry that direct-factory sourcing trades platform-level legal protection for lower price. It doesn't - we publish the same guarantees in writing, add benefits the platforms don't offer at all, and remove the commission layer so the net to your invoice drops.

WHAT PROCUREMENT ASKS FOR	INDUSTRY PLATFORMS	3DESCU DIRECT
ISO 9001:2015 manufacturer certification	Yes (the factory's cert)	**Yes (our own cert, audited annually)**
Free reprint on non-conforming parts	Marketplace mediates	**Article 5.5 of our Manufacturing Service Contract · free reprint, partial or full refund**
Mutual NDA on request	Marketplace template	**Signed in 1 business hour**
GDPR data residency on your CAD	Often US-routed	**EU only (Frankfurt) · 90-day deletion default**
Live video factory tour with the founder	Not offered	**15 min, free, before you commit**
Photos at every production stage	Rare	**Standard on every order**
QC report with dimensional inspection	On separate request	**Standard on orders > €500**
Engineering review before printing	Variable per partner	**Every file · free · 24 h SLA**
Shipping options	Marketplace's default	**3 carriers × 2 speeds (see below)**
Payment flexibility	Card up-front, single tier	**50/50 contract default (deposit + post-inspection) · SEPA / wire · Net-15 by agreement**
Direct line to the founder	Not available	**office@3descu.com · same-business-day reply**
Net to your invoice	Manufacturer's price **+ 25-40 % platform commission**	Up to 40 % less · same ISO 9001 quality

The commission percentage is what the platform takes out of the buyer's payment before forwarding the rest to the manufacturer. We see this directly because we fulfil orders on those platforms. The figure above isn't a forecast or a marketing claim - it's the line item on our own platform invoices.

PRICING THE WAY PROCUREMENT TEAMS WANT IT

Clear numbers. *No surprises on the invoice.*

Every material card below shows three numbers: the rate per gram, the rate per cm³, and a worked example for a 1 kg sample part. The instant-quote tool at 3descu.com applies these rates to your file's actual geometry and returns a reference number in seconds - treat it as your starting point, not a final invoice.

One of our team members reviews every quote that comes in and adjusts the price, the lead time, or the printability assessment if needed. The confirmed quote arrives by email within 24 business hours. Engineering review is included on every order, free. We refine the calculator continuously from each verified quote so the reference number gets closer to the confirmed price over time.

What else lands on the invoice

MATERIAL	The rate shown on each card × the actual volume of your part. Calculator does the math live.
PRODUCTION	Machine-hour × estimated print time. Quoted live in the calculator.
VOLUME BREAK	5 % → 25 % off at 5 / 10 / 20 / 50 / 100 / 200 / 500 / 1 000 pieces.
EU SHIPPING	€12 - 15 typical for parts ≤ 1 kg, 2 - 4 business days EU-wide.
VAT	EU B2B reverse-charge applied automatically with valid VAT. Romanian buyers: +19 % VAT.
MINIMUM	€20 per order, total, never per part.

LOGISTICS + PAYMENT, THE WAY PROCUREMENT WANTS THEM

Three carriers. *Five payment paths.*

Procurement-grade flexibility on both ends. Pick the courier that matches your timeline, the payment route that matches your finance team's preference. Defaults are sensible; alternatives are on request, no friction.

Shipping

INCOTERMS	**DAP or EXW (Incoterms 2020)** as specified in the Order Confirmation · risk transfers at delivery (DAP) or carrier handover (EXW)
DPD ECO	**€12-15** · 2-4 business days EU-wide · insured to declared value · our default carrier
FEDEX EU	**+€8-15** · 1-2 business days to DE / FR / BE / NL / AT · tracked at every checkpoint
DHL EXPRESS	**Premium tier** · next-business-day or same-day to major EU hubs · for genuinely time-critical orders
FREIGHT	For orders > 30 kg or pallet-class: TIR or LTL via DPD Classic; quoted with the part.
PICKUP	Self-pickup at Calea Bucuresti 217D, Târgu-Jiu - free, ready same day for in-stock-material orders.
NON-EU	UK · CH · NO · TR · DHL / FedEx with customs paperwork prepared by us; buyer's EORI required where applicable.
DAMAGE CLAIM	Report within 72 hours of confirmed delivery (96 hours for > 50 parts or 5 kg) per Article 6.3 of the Contract · we file the courier claim on your behalf · free reprint initiated without waiting for the courier outcome (Article 6.4).
LOST PARCEL	Under DAP: we reprint and reship at no cost. Under EXW: courier claim filing assistance per Article 6.5.

Payment

50 / 50 DEFAULT	**Contract structure** · 50 % Production Deposit at Order Confirmation · production starts when deposit arrives · 50 % Completion Payment due 5 business days after the 10-business-day Inspection Window
SEPA INSTANT	Preferred method · settles in seconds · production begins same business day deposit arrives
STANDARD SEPA	1-3 business days for EU bank-to-bank transfers · same outcome, slower clearing
WIRE / SWIFT	For non-EU buyers · we provide IBAN + SWIFT + intermediary bank details on the pro-forma invoice
NET-15	By written agreement for established accounts · standard for B2B accounts after 6 months of clean history
EUR OR RON	EUR is the default for non-RO buyers · RON available on request
VAT TREATMENT	EU B2B reverse-charge applied automatically with valid VAT · RO buyers + 19 % VAT · non-EU zero-rated export · invoices delivered via the mandatory RO e-Factura B2B system
LATE PAYMENT	EU Directive 2011/7/EU rules · ECB reference rate + 8 % p.a. statutory interest + €40 flat recovery fee per overdue invoice · maximum 60-day payment terms
VENDOR PACK	VAT cert, ISO 9001 cert, IBAN, SWIFT, DPA, Manufacturing Service Contract - emailed to your AP team within 1 business hour of request

STANDARD POLYMERS

The everyday workhorses.

Best for prototypes, display models, low-load functional parts. Easy to print, broad colour availability, the cheapest material cost in our catalogue.

PLA / PETG

FDM · MOST POPULAR

Standard tier - shared spool, choose at checkout

DENSITY 1.24 g/cm³ · PROCESS FDM

PLA is the easiest-to-print polymer in our catalogue. PETG adds slight flex and outdoor tolerance. We stock both on the same tier; you pick at checkout.

Use for: display models, indoor prototypes, low-load brackets, decorative pieces, presentation parts.

FROM €0.027 / g
OR €0.033 / cm³

SAMPLE · 1 KG PRINTED
≈ €26.60 in material (volume varies with infill)

PLA+ (Tough)

FDM · POPULAR · REINFORCED RPLA

Reinforced rPLA - same print profile, +30 % toughness

DENSITY 1.24 g/cm³ · PROCESS FDM

PLA's printability with engineering-grade impact resistance. Same temperature behaviour as standard PLA but holds up to repeated handling and moderate mechanical load.

Use for: functional prototypes, presentation pieces that get passed around, low-stress fixtures, classroom models.

FROM €0.037 / g
OR €0.046 / cm³

SAMPLE · 1 KG PRINTED
≈ €37.10 in material (volume varies with infill)

HIPS

FDM

High-Impact Polystyrene - also runs as dissolvable support

DENSITY 1.06 g/cm³ · PROCESS FDM

Tough, lightweight, machinable. Dissolves in d-Limonene, which makes it the preferred soluble-support pairing with ABS prints. Surface is matte and paintable.

Use for: light enclosures, model railroading, dissolvable supports for complex geometries, parts you'll machine post-print.

FROM €0.039 / g
OR €0.041 / cm³

SAMPLE · 1 KG PRINTED
≈ €39.40 in material (volume varies with infill)

ENGINEERING POLYMERS

For functional parts that *do something.*

Higher impact resistance, better temperature behaviour, dimensionally stable under repeated load. Where production-class FDM lives.

ABS

FDM · POPULAR

The original engineering polymer; ~95 °C heat resistance

DENSITY 1.04 g/cm³ · HEAT ~95 °C · PROCESS FDM

Tough, impact-resistant, machinable. Holds dimension well at elevated temperatures. Acetone-smoothable for cosmetic finish. Requires an enclosed printer - we run it on our enclosed-chamber FDM line.

Use for: indoor engineering parts, electronics housings, automotive interior brackets, parts you'll machine or acetone-finish.

FROM €0.038 / g
OR €0.040 / cm³

SAMPLE · 1 KG PRINTED
≈ €38.50 in material (volume varies with infill)

ASA

FDM

UV-stable cousin of ABS - same print profile, outdoor-safe

DENSITY 1.07 g/cm³ · HEAT ~95 °C · UV-STABLE

ABS's mechanical profile plus UV stability for 5+ years outdoors. Same enclosed-print requirement, no acetone-smoothing. The right default for any part that sees sunlight.

Use for: outdoor parts, automotive exterior brackets, garden equipment housings, weather-station enclosures.

FROM €0.047 / g
OR €0.050 / cm³

SAMPLE · 1 KG PRINTED
≈ €46.70 in material (volume varies with infill)

PCTG

FDM · POPULAR

PETG's stronger cousin - higher Tg, better impact

DENSITY 1.27 g/cm³ · HEAT ~85 °C

Behaves like an upgraded PETG: stiffer, higher heat resistance, better optical clarity in clear grades. Easier to print than ABS, tougher than PETG.

Use for: mid-stress functional parts, snap-fit assemblies, food-contact prototypes (food-safe grades on request).

FROM €0.045 / g
OR €0.057 / cm³

SAMPLE · 1 KG PRINTED
≈ €44.90 in material (volume varies with infill)

PC-ABS

FDM

Polycarbonate-ABS blend; tougher than either alone

DENSITY 1.12 g/cm³ · HEAT ~110 °C

Combines PC's heat resistance with ABS's printability. Stiffer + tougher than ABS alone. Common in injection-moulded automotive interior; we print drop-in-replacement parts in the same material family.

Use for: automotive interior brackets and trim, structural electronics housings, parts that replace an injection-moulded ABS-blend.

FROM €0.065 / g
OR €0.073 / cm³

SAMPLE · 1 KG PRINTED
≈ €65.20 in material (volume varies with infill)

PMMA

FDM

Acrylic - optically clear, hard, scratch-resistant

DENSITY 1.18 g/cm³ · OPTICAL-CLASS

FDM-grade acrylic. Print-line clarity isn't as crystal as SLA but with the right layer height and a vapour-polish pass, you get acrylic-class transparency at production volume.

Use for: lens prototypes, display windows, light-pipe housings, scratch-resistant covers.

FROM €0.055 / g
OR €0.065 / cm³

SAMPLE · 1 KG PRINTED
≈ €55.10 in material (volume varies with infill)

Nylon PA-12

FDM

High-modulus engineering polymer; ~115 °C tolerance

DENSITY 1.14 g/cm³ · HEAT ~115 °C

The gold-standard engineering FDM polymer. Tough, chemical-resistant, holds tolerance under repeated load. Needs an enclosed printer and a hardened nozzle.

Use for: living hinges, snap-fits with > 1 000 cycle life, gears, mechanical components under cyclic load.

FROM €0.089 / g
OR €0.101 / cm³

SAMPLE · 1 KG PRINTED
≈ €88.60 in material (volume varies with infill)

Nylon 6 (PA-6)

FDM · NEW

Higher modulus than PA-12, more moisture-sensitive

DENSITY 1.14 g/cm³ · HEAT ~120 °C

Higher tensile strength and stiffness than PA-12; more moisture-sensitive so we dry the spool before every print. Pure PA-6 (not a copolymer), which is the right choice when modulus matters.

Use for: high-load brackets, structural fixtures, jig & tooling components, anywhere you need PA-12 stiffness with even tighter modulus tolerance.

FROM €0.089 / g
OR €0.101 / cm³

SAMPLE · 1 KG PRINTED
≈ €88.60 in material (volume varies with infill)

HIGH-PERFORMANCE POLYMERS

Polycarbonate and beyond.

When the part has to hold up structurally and the budget tolerates engineering-grade material.

Polycarbonate (PC)

FDM

Industrial-grade PC; ~115 °C, impact-resistant

DENSITY 1.20 g/cm³ · HEAT ~115 °C · IMPACT-RATED

Heat-resistant, dimensionally stable, impact-tough. PC needs an enclosed printer + warm chamber to avoid warping. Drop-test class - survives 1.2 m onto concrete in production tests.

Use for: hand-held device housings, impact-resistant fixtures, structural enclosures, automotive interior structural parts.

FROM €0.071 / g
OR €0.085 / cm³

SAMPLE · 1 KG PRINTED
≈ €70.80 in material (volume varies with infill)

Heat-Resistant PC

FDM · NEW

High-Tg variant - sustained service above 100 °C

DENSITY 1.20 g/cm³ · HEAT > 100 °C sustained

Polycarbonate engineered for elevated continuous-service temperatures - under-bonnet automotive prototypes, light-engine bay fixtures, anything that has to survive a thermal cycle standard PC normally can't.

Use for: under-bonnet automotive fixtures, light-engine-bay brackets, thermal-cycling enclosures, near-heat-source structural parts.

FROM €0.092 / g
OR €0.110 / cm³

SAMPLE · 1 KG PRINTED
≈ €91.70 in material (volume varies with infill)

PC-PBT (Makroblend)

FDM · SPECIALTY

PC-PBT blend; chemical-resistant, dimensionally stable

DENSITY 1.22 g/cm³ · CHEMICAL-RESISTANT

A blend used by automotive injection moulders for bumper systems and trim. Combines PC's impact resistance with PBT's chemical resistance. Single-vendor specialty material; we source per project.

Use for: automotive trim and bumper prototypes, fuel-system-adjacent fixtures, chemically exposed structural parts.

FROM €0.157 / g
OR €0.191 / cm³

SAMPLE · 1 KG PRINTED
≈ €156.60 in material (volume varies with infill)

Transparent PC

FDM · NEW

Optically clear polycarbonate - 107 °C tolerance

DENSITY 1.20 g/cm³ · HEAT 107 °C · OPTICAL-CLASS

Clear-grade PC with full PC mechanical profile and 107 °C heat tolerance. Layer lines visible without post-processing; we vapour-polish on request for higher optical clarity. Surface is hard and scratch-resistant.

Use for: impact-resistant clear windows, machine guards, safety enclosures with visibility requirements.

FROM €0.079 / g
OR €0.095 / cm³

SAMPLE · 1 KG PRINTED
≈ €79.20 in material (volume varies with infill)

CARBON-FIBRE REINFORCED

Stiffness-to-weight, *industrial grade.*

Chopped-fibre PA/PETG/ABS for structural FDM parts. Higher modulus than the base polymer; needs hardened nozzles (we have N machines that qualify).

Carbon-Fibre PLA

FDM · POPULAR CF

CF-PLA - stiffness without enclosure requirement

DENSITY 1.30 g/cm³ · 15-20 % CF FILL

PLA matrix with 15 - 20 % chopped carbon-fibre fill. Doubles stiffness, halves shrinkage, matte-black finish. Easier to print than CF-Nylon and cheaper. Hardened nozzle required.

Use for: drone frames, RC chassis, stiffness-critical brackets, aesthetic structural parts.

FROM €0.050 / g
OR €0.065 / cm³

SAMPLE · 1 KG PRINTED
≈ €50.00 in material (volume varies with infill)

Carbon-Fibre PETG

FDM

CF-PETG - outdoor-tolerant CF for functional parts

DENSITY 1.30 g/cm³ · CF-REINFORCED

PETG matrix with chopped CF. Tougher than CF-PLA, outdoor-tolerant, higher impact resistance. Same stiffness boost; better heat tolerance than CF-PLA.

Use for: outdoor structural prototypes, automotive R&D brackets, drone arms that get wet.

FROM €0.055 / g
OR €0.072 / cm³

SAMPLE · 1 KG PRINTED
≈ €55.40 in material (volume varies with infill)

Carbon-Fibre ABS

FDM

CF-ABS - engineering-tier stiffness, heat-resistant

DENSITY 1.10 g/cm³ · HEAT ~95 °C · CF-REINFORCED

ABS toughness + chopped CF stiffness + heat tolerance. The right CF material when CF-PLA isn't temperature-stable enough. Requires enclosed printer + hardened nozzle.

Use for: engine-bay-adjacent automotive brackets, industrial fixtures, parts that need both heat tolerance and stiffness.

FROM €0.065 / g
OR €0.072 / cm³

SAMPLE · 1 KG PRINTED
≈ €65.40 in material (volume varies with infill)

Carbon-Fibre ASA

FDM

CF-ASA - outdoor + stiffness + UV stability

DENSITY 1.12 g/cm³ · UV-STABLE · CF-REINFORCED

ASA's UV stability + CF stiffness. Right material for outdoor structural fixtures that need long-term sun tolerance plus rigidity.

Use for: outdoor structural prototypes, solar-equipment housings, marine-environment fixtures, signage hardware.

FROM €0.070 / g
OR €0.078 / cm³

SAMPLE · 1 KG PRINTED
≈ €69.60 in material (volume varies with infill)

Carbon-Fibre Nylon

FDM · NEW

CF-PA - highest-end FDM-CF tier

DENSITY 1.20 g/cm³ · HEAT ~120 °C · 20 % CF

PA matrix with 20 % chopped CF fill. The aerospace-grade FDM tier - highest stiffness, highest dimensional stability under load, highest service temperature. Hardened nozzle + drying station + enclosed printer required.

Use for: aerospace fixtures, drone airframes, end-use mechanical components, anywhere you'd otherwise machine an aluminium part.

FROM €0.142 / g
OR €0.170 / cm³

SAMPLE · 1 KG PRINTED
≈ €141.70 in material (volume varies with infill)

FLEXIBLE POLYMERS

Rubber-like and beyond.

Compression-resistant flexible filaments for gaskets, soft-touch covers, and impact-absorbing fixtures.

TPU 95A

FDM · POPULAR FLEX

Shore 95A - rubber-like with full compression recovery

DENSITY 1.21 g/cm³ · SHORE 95A

Compresses to 70 % original height, snaps back fully on release. Tested to 50 000+ compression cycles in our fixtures. Wear-resistant; oil + most-chemical-resistant.

Use for: gaskets, soft-touch covers, vibration-dampening mounts, hand-grip overmoulds, flexible hinges.

FROM €0.047 / g
OR €0.057 / cm³

SAMPLE · 1 KG PRINTED
≈ €47.10 in material (volume varies with infill)

TPE

FDM · POPULAR FLEX

Softer than TPU - Shore 60A typical

DENSITY 1.20 g/cm³ · SHORE ~60A

Softer, gummier flexible - closer to natural rubber than TPU. Lower tensile strength, much higher elongation. Used where parts need to deform around an irregular surface.

Use for: seals on irregular surfaces, anti-vibration pads, grippers, wearable-device components.

FROM €0.061 / g
OR €0.073 / cm³

SAMPLE · 1 KG PRINTED
≈ €60.80 in material (volume varies with infill)

RECYCLED FILAMENTS

Same polymer, *recycled feedstock.*

Post-industrial recycled filaments - virtually identical print profile, cheaper, and a measurable carbon-footprint reduction.

Recycled rPLA

FDM · RECYCLED

Post-industrial PLA; standard print profile

DENSITY 1.24 g/cm³ · POST-INDUSTRIAL RECYCLED

Recycled PLA pellets re-extruded into spool. Mechanically identical to virgin PLA on tensile + impact tests we've run. Colour palette is limited (natural / dark grey / dark green).

Use for: non-cosmetic prototypes, fixtures, indoor parts where colour flexibility isn't required.

FROM €0.029 / g
OR €0.036 / cm³

SAMPLE · 1 KG PRINTED
≈ €29.00 in material (volume varies with infill)

Recycled rPETG

FDM · RECYCLED

Post-industrial PETG; functional-grade

DENSITY 1.27 g/cm³ · POST-INDUSTRIAL RECYCLED

PETG made from re-pelletised post-industrial scrap. Holds tensile strength within 5 % of virgin PETG. Same outdoor and food-contact behaviour.

Use for: functional outdoor brackets, low-stress production parts, sustainability-mandated jobs.

FROM €0.028 / g
OR €0.036 / cm³

SAMPLE · 1 KG PRINTED
≈ €28.30 in material (volume varies with infill)

Recycled rABS

FDM · RECYCLED

Post-industrial ABS; engineering-tier

DENSITY 1.04 g/cm³ · POST-INDUSTRIAL RECYCLED

ABS from re-pelletised post-industrial scrap. Same enclosed-printer requirement as virgin ABS. Modulus and impact resistance within 4 % of virgin material in our tests.

Use for: internal engineering fixtures, indoor enclosures, sustainability-mandated automotive prototypes.

FROM €0.035 / g
OR €0.036 / cm³

SAMPLE · 1 KG PRINTED
≈ €34.60 in material (volume varies with infill)

Recycled rASA

FDM · RECYCLED

Post-industrial ASA; outdoor-grade recycled

DENSITY 1.07 g/cm³ · RECYCLED, UV-STABLE

ASA from re-pelletised material. Retains UV stability and outdoor tolerance of virgin ASA. Slight reduction in impact resistance vs virgin - fine for static outdoor fixtures.

Use for: outdoor non-load brackets, signage hardware, low-stress automotive exterior.

FROM €0.046 / g
OR €0.049 / cm³

SAMPLE · 1 KG PRINTED
≈ €45.80 in material (volume varies with infill)

Recycled PVB

FDM · RECYCLED

PVB - alcohol-dissolvable, also runs as support

DENSITY 1.10 g/cm³ · WATER-DISSOLVABLE

Polyvinyl butyral made from recycled automotive windshield laminate. Water- and alcohol-dissolvable. Often used as soluble support pairing for high-detail prints with overhangs.

Use for: soluble supports for complex geometries, scale-model architectural pieces, transparent presentation parts.

FROM €0.066 / g
OR €0.073 / cm³

SAMPLE · 1 KG PRINTED
≈ €66.40 in material (volume varies with infill)

BIO & SPECIALTY

Niche but on-shelf.

Bio-derived, bio-degradable, and engineering-bio polymers. Less common requests but stocked in low volume.

GreenTec Pro

FDM · BIO

Bio-engineering polymer (Extrudr)

DENSITY 1.28 g/cm³ · HEAT ~115 °C · BIO-BASED

Plant-based engineering polymer with mechanical properties close to PETG and a heat resistance closer to ABS. For customers who need engineering performance with bio-derived feedstock.

Use for: sustainability-mandated functional parts, EU green-procurement contracts, replacement of ABS in indoor engineering.

FROM €0.070 / g
OR €0.089 / cm³

SAMPLE · 1 KG PRINTED
≈ €69.50 in material (volume varies with infill)

PHA

FDM · BIO-DEGRADABLE

Polyhydroxyalkanoate - fully bio-degradable

DENSITY 1.24 g/cm³ · INDUSTRIALLY COMPOSTABLE

Bacterially produced bio-polymer. Composts in industrial composting environments inside 12 months. Mechanical properties close to PLA. Niche but the right answer for some packaging + low-cycle product prototypes.

Use for: packaging prototypes, bio-degradable-mandated single-use parts, eco-design teaching models.

FROM €0.050 / g
OR €0.062 / cm³

SAMPLE · 1 KG PRINTED
≈ €50.00 in material (volume varies with infill)

Wood-filled PLA

FDM

PLA + wood-fibre filler; emulates wood grain

DENSITY 1.28 g/cm³ · WOOD-GRAIN FINISH

PLA matrix with 20 - 30 % wood-fibre filler. Layer lines emulate wood grain. Sanding works like sanding real wood. Not load-bearing. Cosmetic-only material.

Use for: architectural site models, design-presentation pieces, prototype furniture, sculptural prints.

FROM €0.034 / g
OR €0.044 / cm³

SAMPLE · 1 KG PRINTED
≈ €34.40 in material (volume varies with infill)

SLA / RESIN

For detail FDM can't hit.

Five in-stock resins covering presentation, functional, and casting use cases. Layer height down to 0.02 mm.

Standard Resin

SLA

High-detail resin - display and presentation

DENSITY 1.10 g/cm³ · LAYER 0.02 mm

Very high surface detail, sharp feature reproduction down to 0.2 mm. Brittle (don't use for functional load). 0.02 mm layers.

Use for: jewellery masters, display models, architectural detail, hero-shot product prototypes.

Quoted per project - please send your file via 3descu.com/quote or email office@3descu.com.

Tough Resin (ABS-like)

SLA

SLA detail with impact-resistant mechanical profile

DENSITY 1.12 g/cm³ · LAYER 0.05 mm

SLA detail with mechanical properties close to ABS. Survives functional testing where standard resin would shatter. 30+ MPa modulus.

Use for: functional prototypes needing SLA detail, snap-fits, gears, lightweight engineering parts.

Quoted per project - please send your file via 3descu.com/quote or email office@3descu.com.

Flexible Resin

SLA

Rubber-like SLA, mid-Shore hardness

DENSITY 1.05 g/cm³ · LAYER 0.05 mm

Rubber-like SLA for flexible parts at high detail. Mid-Shore hardness; cures hard then flexes under load. Useful for soft-touch SLA-detail parts.

Use for: soft-touch product prototypes, wearable-device flexure components, high-detail gaskets.

Quoted per project - please send your file via 3descu.com/quote or email office@3descu.com.

Castable Resin

SLA

Investment-cast burnout; no ash residue

DENSITY 1.11 g/cm³ · BURNOUT ash-free

Burns out completely during the casting cycle - zero ash, no residue. Used by jewellers for investment-cast wax-master replacement. Direct STL → casting blank in 2 hours.

Use for: jewellery investment casting, lost-wax moulds, watchmaking, dental crown framework casting.

Quoted per project - please send your file via 3descu.com/quote or email office@3descu.com.

Water-Washable Resin

SLA

No IPA - water-only post-process

DENSITY 1.13 g/cm³ · WATER-WASH POST-PROCESS

Standard-class SLA detail with water-soluble pre-cure surface. Cuts post-processing cycle from 30 minutes to 8 minutes. Production-flow advantage for high-volume SLA orders.

Use for: high-volume SLA prototypes where post-process speed matters, rapid-iteration design.

Quoted per project - please send your file via 3descu.com/quote or email office@3descu.com.

CUSTOM MATERIAL SOURCING

Need a polymer not listed? *Tell us.*

We source from trusted EU distributors and our team returns a confirmed quote within 24 business hours - for any polymer our fleet can run. Specialty PA grades, ESD-safe, conductive, glass-fibre reinforced, dental, biomedical, food-contact, recycled-content alternatives - all sourced per project.

01

Tell us the polymer

Email **office@3descu.com** with the material grade you need (specialty PA, ESD-safe PETG, dental resin, etc.) and the part you're making.

02

We source & validate

Within 24 hours we confirm: source, lead time on the spool, our suggested print path, any concerns about printability. No commitment to order.

03

Order with a confirmed quote

If the numbers work, you order. Custom-material orders carry a 20 % surcharge on the sourced material cost to cover handling. Otherwise standard terms apply.

Materials we can custom-source for our fleet

Specialty engineering: alternative PA-CF / PA-GF grades, ESD-safe PETG, conductive carbon-black PLA / PETG, food-contact certified PCTG
Aesthetic: glow-in-dark, colour-change, metallic-fill, marble-fill, glass-bead-filled, glitter, silk-finish
Niche flex: Shore 70A TPU, alternative TPE Shore grades, soft-touch overmould compounds
Medical / dental: dental clear SLA resin (Class IIa via certified source), surgical-guide validated resins, biomedical-grade resins
Recycled variants: additional recycled-content filaments beyond the in-stock catalogue

What we don't run: ultra-high-temperature polymers (PEEK, ULTEM, PEKK, PPSU) require 400 °C+ hot ends and active heated chambers that our fleet doesn't operate. For those jobs we partner-pass-through to a vetted EU service, the same way we handle SLS - you talk only to us, we handle QC and shipping.

Email office@3descu.com →

Get a standard-material quote

3DESCU

ISO 9001:2015-certified direct-factory 3D printing service. 190 industrial machines (180 FDM + 10 SLA) operated in-house at our Târgu-Jiu facility. Excellence Partner status on industry platforms (3+ years). Rated 4.66 / 5 by 203 verified customers.

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NDA request
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> Sourcing 3D-printed parts and want to skip the platform layer?
> Email office@3descu.com - every message lands in our inbox and gets a personal reply from our team within the same business day.
> - Adrian Căpraru · Founder & 3D Specialist · linkedin.com/in/adriancapraru27

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