



**SPECIAL THERMOPLASTICS
FOR 3D PRINTING**

LATI HAS ENTERED THE WORLD OF ADDITIVE MANUFACTURING:

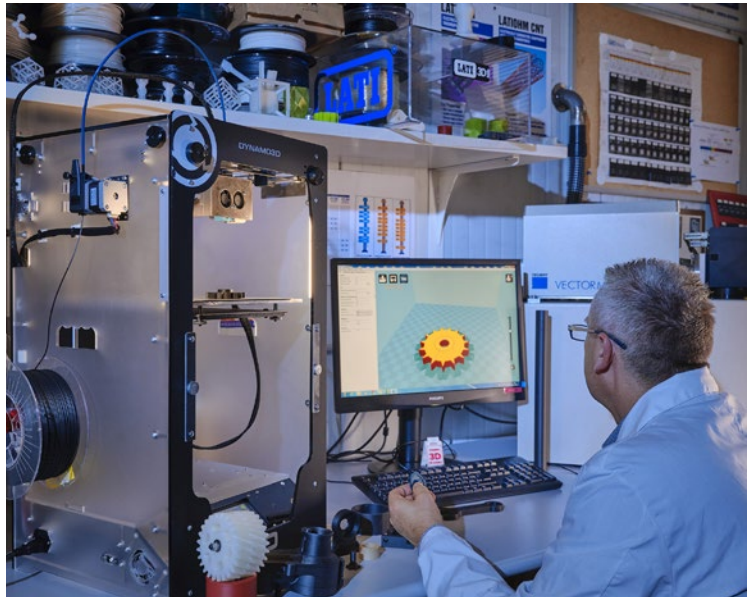
Backed by its seventy-five years of experience in technical compounding for injection moulding, LATI R&D for some years now has been committed to developing compounds for 3D printing.

The need to have increasingly complex and challenging formulas has prompted the LATI company to invest further.

LATI3Dlab has been created as the in-house team dedicated to the 3D Printing activity gathering a R&D laboratory, production and sales management.

Today, LATI offers:

- **Tailor-made** developments and products
- Its **knowledge** of polymers and compounding,
- Production capacities for **small lots** and short **lead-time**.



LATI applies its technological know-how to compounds suitable for Fused Deposition Modelling (FDM) or Fused Filament Fabrication (FFF) in 3D printing process.

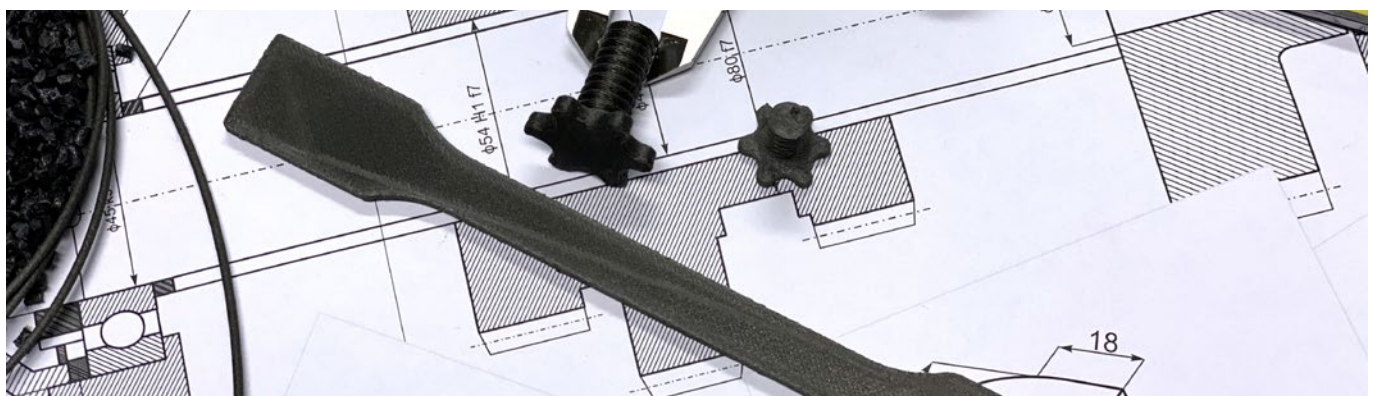
LATI "**AM**" for **Additive Manufacturing** is the name of the compounds range expressly studied for extrusion of filaments for 3D printing.

They offer excellent performances in terms of processability, melt strength and dimensional stability of deposited layers.

"**AM**" compounds are developed on a wide range of resins, from the standards PLA and ABS up to PC, PAs, sulfonated or other high thermal resistant resins like PES or PEEK.

Every "**AM**" product can offer functional properties like electrical and thermal conductivity, radio-opacity, mechanical strength, self-lubricant properties and flame retardancy.

Many other specialty can be tailor made starting from Customer requirements.

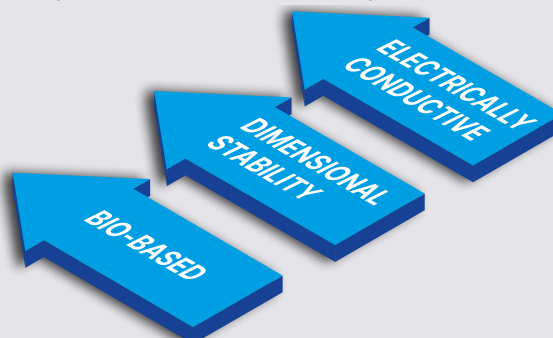


ELECTRICALLY CONDUCTIVE MATERIAL: LATIOHM B61-01 AM CNT



Based on modified **PLA**, thanks to **carbon nanotubes** this material can achieve very low surface resistivity, close to **10Ω**.

Other grades based on PA12 or TPU are available.



IMPROVED PLA: LATIGEA B20 AM UVH TES/10



Based on modified PLA, it offers a thermal resistance higher than ABS after quick annealing



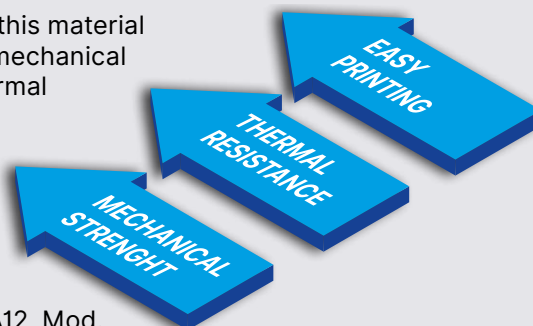
	TEST METHOD	ABS moulded	STD PLA moulded	LATIGEA B20 AM UVH TES/10 3d printed after annealing*
HDT Heat Deflection Temp.	ISO 75/A (1,81 MPa) ISO 75/B (0,45 MPa)	80°C 85°C	50°C 55°C	66°C 116°C
VICAT Softening point	ISO 306 (50 N)	95°C	60°C	85°C

*10-15 minutes @ 90-100°C

THERMALLY AND MECHANICALLY IMPROVED PETg: LATER G AM HT K/10



Based on modified **PETg**, this material can achieve outstanding mechanical properties and higher thermal resistance than standard PETg thanks to long carbon fibers reinforcement and special tuning.

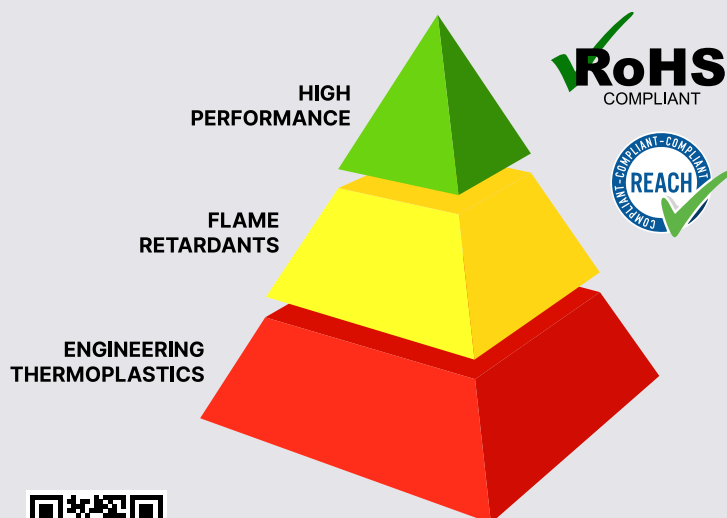









Other grades based on PA12, Mod. PA, PPS, PEEK are available, reinforced with carbon and glass fibres.

	TEST METHOD	std PETg	LATER G AM HT K/10
TENSILE MODULUS	ISO 527 (1)	2300 MPa	7700 MPa
TENSILE STRENGTH at break	ISO 527 (1)	NR	110 MPa
HDT Heat Deflection Temp.	ISO 75/B (0,45 MPa)	70°C	109°C

Data obtained by injection molding

	PRODUCT	ADVANTAGES
FOR COMMON USE		
PLA mod.	LATIGEA B20 AM UVH TES/10	High thermal resistance, UV & hydrolysis stabilized, high aesthetic, dimensional stability
PETg mod.	LATER G AM	Good processability, dimensional stability
PETg mod.	LATER G HT AM	Higher thermal resistance, good processability, dimensional stability
PC	LATILON AM	High temperature resistance, good stability and processability
rPC	LATIECO 87/24MR AM ♻️	Based on recycled PC, high temperature resistance, good stability and processability
MECHANICALLY IMPROVED		
PLA mod.	LATIGEA B20 AM UVH E92 K/15	High thermal resistance, long carbon fibres reinforced, impact modified
TPU	LASTANE 50 AM K/20	Long carbon fibres reinforced, exceptional flexibility and impact resistance
PETg mod.	LATER G HT AM K/10	Long carbon fibres reinforced, higher thermal resistance, dimensional stability
PP mod.	LATENE EP3 AM K/20	Long carbon fibres reinforced, good chemical resistance, no moisture absorption
PA12	LATAMID 12 AM K/15	Long carbon fibres reinforced, great processability, low moisture absorption
PA mod.	LATAMID SP1 AM K/15	Long carbon fibres reinforced, low moisture absorption, high strength
PC/PBT	LATIBLEND 7587 AM K/10	Long carbon fibres reinforced, good impact strength, high chemical resistance
ELECTRICALLY CONDUCTIVE/ANTISTATIC		
PLA mod.	LATIOHM B61-01 AM CNT	Carbon nanotubes, very high conductivity, surface resistivity 10 to 100W (**)
ABS	LATIOHM 36-08 AM PD02	Semi-transparent, colourable, improved dimensional stability, antistatic
SPECIALTIES		
PLA	LATIGRAY B01-01 AM CX/35	X-Ray radiopaque & food compliance
ABS	LATILUB 36 AM Y/05	Self-lubricant, low friction & wear resistance thanks to Kevlar reinforcement
PETg	LATER G AM MDT05-01	Magnetically detectable, food compliance & colourable
PETg	LATER G AM-V0HF	Flame retardancy UL94-V0, halogen free, good stability and processability
PETg	LATILUB 77 AM 10T	Self-lubricant, low friction & wear resistance, good stability and processability
PC	LATILON 28 AM-V0	Flame retardancy UL94-V0, halogen free, clear
PC	LATILUB 87/28 AM 20T	Self-lubricant, low friction & wear resistance, high temperature resistance
HIGH TEMPERATURE (+ MECHANICALLY IMPROVED)		
PESU	LAPEX AM	Flame retardancy UL94-V0, temperature resistance up to 180°C
PPS mod.	LARTON AM E	No moisture absorption, high temperature resistance, Flame retardancy UL94-V0
PPS mod.	LARTON AM K/15	Long carbon fibres reinforced, no moisture absorption, high temperature resistance, Flame retardancy UL94-V0
PEEK	LARPEEK AM K/10	Long carbon fibres reinforced, no moisture absorption, high chemical resistance, high temperature resistance, Flame retardancy UL94-V0



MAGNETIC & DETECTABLE 	STRUCTURAL MATERIALS 
SELF LUBRICANTS 	GREEN AND SUSTAINABLE 
ELECTRICALLY CONDUCTIVE 	CONTROLLED DENSITY 
THERMALLY CONDUCTIVE 	X-RAY SHIELDING 