

# TECHNICAL DATA SHEET



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## Product specifications

ApolloX is a modified ASA based 3D printer filament with improved mechanical properties and is suitable for 3D printing mechanical parts and outdoor applications with high precision and zero warping.

Flammability rating: UL94

## Important key features

UV & weather resistant  
Optimized filament flowing behaviour, thermal stability, and inter-layer adhesion  
Greatly improved mechanical properties and strength

## Suitable applications

Automotive  
Aviation & Heavy industry  
Outdoor equipment

## Recommended pretreatment

**Drying**  
Recommended  
45 - 60 °C  
12 h

**Print with**  
Enclosure Yes  
Dry box No

## Recommended print settings regular speed

Print speed 25 - 200 mm/s  
Nozzle temperature 230 - 280 °C  
Bed temperature 90 - 110 °C  
Fan speed 0 - 50 %

## Recommended print settings high speed

ApolloX is high speed compatible. Our recommended settings will be added once available. Please take note that the nozzle temperature and fan speed need to be raised when printing at high speed.

Material properties	Typical value	Unit of Measure	Test method	Test condition
Density				
Specific gravity	1,07	g/cm <sup>3</sup>	ASTM D792	
Melt flow rate	5	g/10min	ASTM D1238	220°C/10kg
<b>Mechanical properties</b>				
Impact strength	435	kJ/m <sup>2</sup>	ASTM D256	Izod notched 23°C
Tensile strength at yield	42	MPa	ASTM D638	
Tensile strength at break				
Tensile modulus	1800	MPa	ASTM D638	
Elongation at yield				
Elongation at break	35	%	ASTM D638	
Flexural strength	64	MPa	ASTM D790	
Flexural modulus	1900	MPa	ASTM D790	
Rockwell hardness				
<b>Thermal properties</b>				
Melting temperature				
Heat deflection temperature	86	°C	ASTM D648	HDT A
Vicat softening temperature	94	°C	ASTM D1525	
Glass transition temperature				

## Product export information

HS code	Description	Origin
39169090	Monofilament for 3D printing	European Union

## Disclaimer

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