

Novamid® AM1030 FR

Novamid® AM1030 FR is a UL Blue Card certified, non-halogenated, environmentally friendly, open platform solution for applications requiring flame retardancy as a regulatory requirement.

- **Engineering grade PA6/66 filament**
- **For Fused Deposition Modelling/Fused Filament Fabrication 3D printing**

Printing a part that requires flame retardancy on an open system has often meant having to turn to materials that were overspecified for the application, simply because no alternatives.

DSM now has a solution: Novamid® AM1030 FR, the first ever UL Blue Card certified PA6/66 filament for open systems. Now applications can be printed that require UL certification on flammability, such as enclosures for electric or lighting applications, connectors and more. UL's Blue Card program is specially developed for certification of materials for additive manufacturing. Novamid® AM1030 FR is completely halogen-free, making it environmentally friendly.

The UL94 V test performed on plastic materials measures flammability characteristics, examining how the material either extinguishes or spreads a flame once ignited.

Validated in an UL-certified lab, the DSM material achieved a UL 94 rating of V-0 at 1.6 & 3.2 mm wall thickness and a UL 94 V-2 rating at 0.85mm wall thickness. This means that the material, after ignition, extinguishes by itself in maximum 10 (V-0) and 30 (V-2) seconds. UL requires Blue Cards for 3D printing materials to be printer specific; this material was tested on an Ultimaker S5 printer. Nevertheless, being an open platform material, users with any open platform fused filament fabrication system can work with Novamid® AM1030 FR.

Based on DSM's specialty Novamid® technology, this new flame-retardant material demonstrates all the performance attributes that customers rely on, such as excellent mechanical properties and easy printability.

Key Benefits

- UL Blue Card certified
- V-0 at 1.6 & 3.2 mm & V2 at 0.85mm
- Non-halogenated
- Environmentally friendly
- Open platform solution
- Easy to print
- A cost-effective alternative to other flame retardant materials

Applications

- Automotive connectors
- Electric and electronic connectors and enclosures
- Lighting enclosures



Technical Data

	dry	unit	test method
Tensile modulus	3500 / -	MPa	ISO 527-1/-2
Yield stress	57 / -	MPa	ISO 527-1/-2
Yield strain	2,8 / -	%	ISO 527-1/-2
Stress at break	50 / -	MPa	ISO 527-1/-2
Strain at break	7 / -	%	ISO 527-1/-2
Charpy impact strength (+23°C)	29,7 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	3 / -	kJ/m ²	ISO 179/1eA

More information

For more information and buying options, please visit www.dsm.com/additive-manufacturing/

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