

LET'S MANUFACTURE TOMORROW



**NOVAMID®
AM1030 FR (F)**



NOVAMID® AM1030 FR (F)

Novamid® AM1030 FR (F) 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 modeling/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 (F), 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 (F) 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 (F).

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
- 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

NOVAMID® AM1030 FR (F)

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

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

DSM – Bright Science. Brighter Living.™

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of aforementioned information, or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequences from the use of all such information. Novamid® is a trademark of DSM.

Copyright © DSM 2019. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of DSM. Doc 0025-01

