

# Novamid® ID 1070

## PA copolymer

3D printing grade

Print Date: 2020-04-01

The mechanical data is tested on printed tensile bars, printed in two directions: 0°-90° and 45°-45°

Properties	Typical Data	Unit	Test Method
<b>Mechanical Properties (Injection Molded)</b>			
	dry / cond		
Tensile modulus	2590 / 710	MPa	ISO 527-1/-2
Yield stress	77 / 40	MPa	ISO 527-1/-2
Yield strain	4.2 / 25.6	%	ISO 527-1/-2
Stress at break	46.5 / 47.5	MPa	ISO 527-1/-2
Strain at break	>50 / >50	%	ISO 527-1/-2
Flexural modulus	2680 / 740	MPa	ISO 178
Flexural strength	108 / 31.5	MPa	ISO 178
Charpy impact strength (+23°C)	N / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	N / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	5.3 / 51	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	2.4 / 3	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Thermal properties</b>			
	dry / cond		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	54 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	104 / *	°C	ISO 75-1/-2
<b>Other properties</b>			
	dry / cond		
Water absorption	12 / *	%	Sim. to ISO 62
Humidity absorption	3.5 / *	%	Sim. to ISO 62
Density	1120 / -	kg/m <sup>3</sup>	ISO 1183

Akulon®, Arnite®, Arnitel®, EcoPaXX®, ForTii®, Novamid®, Stanyl® and Xytron™ are trademarks of DSM.

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 the 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.

Typical values are indicative only and are not to be construed as being binding specifications. This document replaces all previous versions relating to this subject.

Copyright © DSM 2020. 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.

Novamid<sup>®</sup> ID 1070

Print Date: 2020-04-01

Properties	Typical Data	Unit	Test Method
<b>Material specific properties</b>	<b>Value</b>		
Maximum tensile stress (3D printed tensile bars) 0°-90°	45	MPa	ISO 527-1/-2
Maximum tensile stress (3D printed tensile bars) 45°-45°	50	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 0°-90°	1710	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 45°-45°	2120	MPa	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 0°-90°	7.2	%	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 45°-45°	15	%	ISO 527-1/-2

Akulon®, Arnite®, Arnitel®, EcoPaXX®, ForTii®, Novamid®, Stanyl® and Xytron™ are trademarks of DSM.

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 the 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.

Typical values are indicative only and are not to be construed as being binding specifications. This document replaces all previous versions relating to this subject.

Copyright © DSM 2020. 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.

