

# Arnitel® ID 2045

## TPC

>50% Renewable Content, 3D printing grade

Print Date: 2018-10-23

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

The material passed the ISO irritation, ISO cytotox and the USP VI tests.

Properties	Typical Data	Unit	Test Method
<b>Thermal properties</b>			
	Value		
Melting temperature (10°C/min)	158	°C	ISO 11357-1/-3
Glass transition temperature (10°C/min)	-35	°C	ISO 11357-1/-2
Vicat softening temperature (50°C/h 10N)	90	°C	ISO 306
<b>Electrical properties</b>			
	Value		
Volume resistivity	>1E13	Ohm*m	IEC 60093
Electric strength	20	kV/mm	IEC 60243-1
<b>Other properties</b>			
	Value		
Humidity absorption	0.04	%	Sim. to ISO 62
Density	1100	kg/m <sup>3</sup>	ISO 1183
<b>Material specific properties</b>			
	Value		
Maximum tensile stress (3D printed tensile bars) 0°-90°	8	MPa	ISO 527-1/-2
Maximum tensile stress (3D printed tensile bars) 45°-45°	7.6	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 0°-90°	29	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 45°-45°	29	MPa	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 0°-90°	350	%	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 45°-45°	390	%	ISO 527-1/-2
Shore D Hardness (3s)	34	-	ISO 868

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 2018. 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.