SAF™ PA12 - Powered by Evonik Datasheet

SAF™ PA12 - Powered by Evonik is a cost-efficient production material developed to help manufacturers scale additive manufacturing while maintaining the performance expected from PA12. Processed with Stratasys SAF™ technology on the H350™ 3D printer, it delivers strong, resilient, and dimensionally accurate parts with the consistency required for industrial applications.

Introduced in partnership with Evonik, a global leader in high-performance polymers, this material combines proven PA12 mechanical performance with improved production economics. Faster print speeds and optimized material pricing enable a lower total cost per part while maintaining reliable build-to-build quality.

With seamless integration into the SAF workflow, SAF™ PA12 Powered by Evonik is designed to support efficient, scalable production across a wide range of end-use applications.

Property	Mean	Unit	Standard*
Tensile Strength (XZ,YX)	47 (6,817)	MPa (psi)	ASTM D638-14
Tensile Strength (ZX)	45 (6,672)	MPa (psi)	ASTM D638-14
Elongation at Break (XZ,YX)	11	%	ASTM D638-14
Elongation at Break (ZX)	5	%	ASTM D638-14
0.2% Offset Yield Strength (XZ,YX)	33.5 (4,859)	MPa (psi)	ASTM D638-14
0.2% Offset Yield Strength (ZX)	32.2 (4,670)	MPa (psi)	ASTM D638-14
Tensile Modulus (XZ,YX)	1,750 (254)	MPa (ksi)	ASTM D638-14
Tensile Modulus (ZX)	1,700 (247)	MPa (ksi)	ASTM D638-14
Flexural Strength (XZ,YX)	40 (5,801)	MPa (psi)	ASTM D790-17
Flexural Strength (ZX)	41 (5,946)	MPa (psi)	ASTM D790-17
Flexural Modulus (XZ,YX)	900 (131)	MPa (ksi)	ASTM D790-17
Flexural Modulus (ZX)	925 (134)	MPa (ksi)	ASTM D790-17
Notched Impact Strength (XZ,YX)	4.17 (1.98)	kJ/m^2 (Ft.lbf/in^2)	ASTM D256-10
Notched Impact Strength (ZX)	3.36 (1.60)	kJ/m^2 (Ft.lbf/in^2)	ASTM D256-10

* Testing based on stated ASTM standards with the following exceptions: tests performed at ambient laboratory conditions (approximately 21 °C and ambient humidity). Samples not conditioned as per stated methods prior to testing.

General	Mean	Unit	Standard
Part Specific Gravity	0.98		ASTM D792-13
Virgin Particle Size D50	56 (2.2)	µm (thou)	
Virgin Powder Melting Point	185 (365)	°C (°F)	

Disclaimer:

[1] Customer acknowledges the contents of this document and that Stratasys parts, materials, and supplier are subject to its standard terms and conditions, available on http://www.stratasys.com/legal/terms-and-conditions-of-sale, which are incorporated herein by reference.

[2] The specifications and/or information on which this document is based are subject to change without notice.

[3] The information presented are typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. End-use material performance can be impacted (+/-) by, but not limited to, part design, end-use conditions, test conditions, etc. Actual values will vary with build conditions. Tested parts were built on the Stratasys H350 3D printer. Product specifications are subject to change without notice. The performance characteristics of these materials may vary according to application, operating conditions, or end use. Each user is responsible for determining that the Stratasys material is safe, lawful, and technically suitable for the intended application, as well as for identifying the proper disposal (or recycling) method consistent with applicable environmental laws and regulations. Stratasys makes no warranties of any kind, express or implied, including, but not limited to, the warranties of merchantability, fitness for a particular use, or warranty against patent infringement.