# SIMONA



## SIMOGREEN PLA Filament

For maximum precision in 3D printing

GLOBAL THERMOPLASTIC SOLUTIONS

# SIMOGREEN PLA Filament – For maximum precision in 3D printing



#### A promising growth market

In 2013 the 3D printing market as a whole generated sales to the tune of USD 2.5 billion. Market analysts predict an average annual growth rate of 45.7% by 2016, with around 66% of sales attributable to consumables and services.

With the launch of its SIMOGREEN PLA Filaments, SIMONA is offering a reliable consumable for 3D printers in proven SIMONA quality – made in Germany.

The last decades have seen the development of numerous 3D printing processes; these are additive manufacturing techniques in which components are produced directly from CAD data without the kind of shaping tools used in areas such as injection-moulding or thermoforming.

#### **3D printing process**

In 3D printing with polymer filaments, the molten filament is deposited in layers through a movable nozzle to form a three-dimensional structure. The individual layers fuse into one another and the material solidifies as it cools, allowing complex geometries to be realised as 3D models.

#### **Consistent material quality**

Due to the ease with which they can be processed, filaments made of the bio-based plastic PLA (polyactide) are particularly suitable for 3D printing. Thanks to the informed choice of raw material, systematic adjustment of the formula and comprehensive testing, SIMONA has developed a PLA filament offering an outstanding and above all consistent material quality.

SIMONA can also supply 3D printing filaments in PETG as well as HIPS support material on request.



## SIMOGREEN PLA Filament -Product range and properties

#### SIMOGREEN PLA / PLA-HT Filament

		Spool	Spool
		0.75 kg	2.0 kg
ound re	<b>1.</b> 75	er d in mm)	· · · · · · · · · · · · · · · · · · ·
O   d	2.85	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
	3.00	V	V
	Colours	blue, red, white, natural, black, yellow, green, silver-grey	

For more information about availability, please contact our sales department: sales@simona.de. Other materials (e.g. PETG or HIPS), formats, diameters and colours on request.



#### Wide range of colours

The current product range comprises PLA filaments in blue, red, white, natural, black, yellow, green and silver-grey. Other colours are available on request.



#### Excellent material properties

PLA boasts high rigidity and good adhesion. In addition, 3D models in PLA can be easily bonded and painted. PLA-HT features higher heat resistance and much improved notched impact strength compared with standard PLA.



#### **High precision**

To ensure an optimum printing result, we take great care to ensure superior quality when producing the filament and winding it onto the spool.



### **Excellent printability**

The small filament diameter and very narrow tolerances guarantee very good printability even in the case of intricate shapes.



## SIMOGREEN PLA Filament – Material specifications

#### Material specifications

	SIMOGREEN PLA	SIMOGREEN PLA-HT
Density, g/cm³, DIN EN ISO 1183	1.26	1.26
Yield stress, MPa, DIN EN ISO 527	73	39
Elongation at yield, %, DIN EN ISO 527	2.9	1.3
Tensile modulus of elasticity, MPa, DIN EN ISO 527	3,350	3,800
Notched impact strength, kJ/m², DIN EN ISO 179	2.7	23
Shore hardness D (15 s), DIN EN ISO 868	81	77
Vicat B, °C, DIN EN ISO 306	55	86



#### SIMONA AG

#### Teichweg 16 55606 Kirn Germany

Phone +49(0)675214-0 +49(0)675214-211 mail@simona.de www.simona.de

#### PRODUCTION SITES

### Plant I

Teichweg 16 55606 Kirn

Sulzbacher Straße 77 55606 Kirn Germany

#### Plant III

Gewerbestraße 1-2 77975 Ringsheim Germany

#### SIMONA Plast-Technik s.r.o.

U Autodílen 23 43603 Litvínov-Chudeřín Czech Republic

#### SIMONA ENGINEERING PLASTICS

(Guangdong) Co. Ltd.

No. 368 Jinou Road High & New Technology Industrial Development Zone Jiangmen, Guangdong China 529000

#### SIMONA AMERICA INC.

101 Power Boulevard Archbald, PA 18403 IISΔ

#### **Boltaron Inc.**

**A SIMONA Group Company** 

One General Street Newcomerstown, OH 43832 USA

#### SALES OFFICES

#### SIMONA S.A.S. FRANCE Z.I. 1, rue du Plant Loger

95335 Domont Cedex Phone +33(0)139354949 +33(0)139910558 mail@simona-fr.com www.simona-fr.com

#### SIMONA UK LIMITED

Telford Drive Brookmead Industrial Park Stafford ST16 3ST Great Britain Phone +44(0)1785 222444 +44(0)1785 222080 mail@simona-uk.com www.simona-uk.com

#### SIMONA AG SWITZERLAND

Industriezone Bäumlimattstrasse 16 4313 Möhlin Switzerland Phone +41(0)618559070 +41(0)618559075 mail@simona-ch.com www.simona-ch.com

#### SIMONA S.r.I. ITALIA UNIPERSONALE

www.simona-it.com

Via Padana Superiore 19/B 20090 Vimodrone (MI) Phone +39 02 25 08 51 +39 02 25 08 520 mail@simona-it.com

#### SIMONA IBERICA SEMIELABORADOS S.L.

Doctor Josep Castells, 26-30 Polígono Industrial Fonollar 08830 Sant Boi de Llobregat Spain

Phone +34 93 635 4103 +34 93 630 88 90 mail@simona-es.com www.simona-es.com

#### SIMONA-PLASTICS CZ, s.r.o.

Zděbradská ul. 70 25101 Říčany-Jažlovice Czech Republic Phone +420 323 63 78 37 +420 323 63 78 48 mail@simona-cz.com www.simona-cz.com

#### SIMONA POLSKA Sp. z o. o. ul. Wrocławska 36

Wojkowice k / Wrocławia 55-020 Żórawina Phone +48(0)713528020 Fax +48(0)713528140 mail@simona-pl.com

#### www.simona-pl.com 000 "SIMONA RUS"

Prospekt Andropova, 18, Bl. 6 115432 Moscow Russian Federation Phone +7 (499) 683 00 41 Fax +7 (499) 683 00 42 mail@simona-ru.com www.simona-ru.com

#### SIMONA FAR EAST LIMITED

Room 501, 5/F CCT Telecom Building 11 Wo Shing Street Fo Tan, Hong Kong China Phone +852 2947 0193 Fax +852 29 47 01 98

#### sales@simona-hk.com www.simona-cn.com

TRADING (Shanghai) Co. Ltd. Room C, 19/F, Block A Jia Fa Mansion 129 Da Tian Road, Jing An District Shanghai China 200041 Phone +86 21 6267 0881 +86 21 6267 0885 shanghai@simona.com.cn

SIMONA ENGINEERING PLASTICS

#### SIMONA AMERICA INC.

101 Power Boulevard Archbald, PA 18403 USA Phone +1 866 501 2992 +1 800 522 4857 mail@simona-america.com www.simona-america.com

#### **Boltaron Inc.** A SIMONA Group Company

One General Street Newcomerstown, OH 43832

Phone +1 800 342 7444 +1 740 498 5448 Fax info@boltaron.com www.boltaron.com



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