

SIMONA



SIMONA[®] Eco-Ice

Smooth Plastic Sheets for Ice Rinks

Reduce Costs and Save Energy with SIMONA® Eco-Ice



SIMONA® Eco-Ice plastic sheets make ice skating possible all year round – with low energy and operating costs. A rink surface made out of SIMONA® Eco-Ice has virtually the same feel as freshly cleaned ice. This means the refrigeration systems of conventional ice rinks are no longer required. SIMONA® Eco-Ice can be supplied in the following types of polyethylene: PE-HD (high heat stability), PE-HMW (high molecular weight) and PE-UHMW (ultra-high molecular weight).

SIMONA® Eco-Ice plastic sheets are suitable for interior use and, with UV stabilisation, are also suitable for year-round outdoor use. Whether in leisure parks, hotels or stadiums – ice rinks featuring SIMONA® Eco-Ice have become a common sight.

Fields of application


- For new stadiums and stadium upgrades
- Training areas for ice skating and ice hockey
- Ice rinks for events and festivities such as Christmas markets
- Ice rinks in holiday parks and hotels
- Mobile ice rinks

First-class properties

- Excellent glide properties
- Physiologically safe according to BfR, FDA and EU regulations
- High durability
- Good chemical resistance to cleaning agents
- No corrosion
- Consistent surface quality
- Very good processing capability
- Very versatile and easy to work with UV-stabilised (special option with a ten-year guarantee)
- Suitable for use in a wide range of temperatures

Product Range and Properties of SIMONA® Eco-Ice

SIMONA® Eco-Ice

	PE-HD	PE-HMW	PE-UHMW
Pressed sheets (Formats/Thicknesses)			
 2000 x 1000	10 to 120	10 to 120	10 to 120
Colours	natural	natural	natural

Measurements in mm.

Other formats, colours and thicknesses available on request.



+ Sustainable cost and energy savings

With SIMONA® Eco-Ice you save on the cost of ice rink maintenance and operation. Ice machines for smoothing the surface of the ice and refrigeration systems all become superfluous. In addition, the huge energy savings involved mean you make a contribution to environmental protection.

+ Simple handling

SIMONA® Eco-Ice is excellent to work with and extremely versatile. It is simple to cut and saw for tongue-and-groove installation. On request, we can also prepare the sheets to your individual requirements.

Please do not hesitate to contact our Mechanical Engineering & Transport Systems team for further information:

Phone +49 (0) 67 52 14-0

Fax +49 (0) 67 52 14-211

engineering@simona.de

+ Long service life

Under normal circumstances, plastic ice rinks can be skated on for up to ten years without becoming brittle or scuffed.

Material Specifications

SIMONA® Eco-Ice

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	PE-HD	PE-HMW	PE-UHMW
Density, g/cm ³ , ISO 1183	0.966	0.957	0.930
Yield stress, MPa, DIN EN ISO 527	28	28	21
Elongation at yield, %, DIN EN ISO 527	8	8	11
Elongation at break, %, DIN EN ISO 527	450	300	300
Tensile modulus of elasticity, MPa, DIN EN ISO 527	1300	1100	700
Impact strength, kJ/m ² , DIN EN ISO 179	no break	no break	no break
Notched impact strength	kJ/m ² , DIN EN ISO 179 DIN EN ISO 11542-2		
		18	200
Ball indentation hardness, MPa, DIN EN ISO 2039-1	40	45	38
Mean coefficient of linear thermal expansion, K ⁻¹ , DIN 53752	1.8 × 10 ⁻⁴	1.8 × 10 ⁻⁴	1.8 × 10 ⁻⁴
Specific surface resistance, ohm, IEC 60167	10 ¹⁴	> 10 ¹⁴	> 10 ¹⁴
Physiologically safe, BfR/FDA/EU Regulation	✓	✓	✓
Fire behaviour, DIN 4102	normal flammability B2	normal flammability B2	normal flammability B2
Temperature range, °C	-50 to +80	-100 to +80	-260 to +80

SIMONA AG

Teichweg 16
D-55606 Kirn
Germany
 Phone +49(0)67 52 14-0
 Fax +49(0)67 52 14-211
 mail@simona.de
 www.simona.de

PRODUCTION SITES

Plant I/II
 Teichweg 16
 D-55606 Kirn
 Germany
 Phone +49(0)67 52 14-0
 Fax +49(0)67 52 14-211

Plant III
 Gewerbestraße 1-2
 D-77975 Ringsheim
 Germany
 Phone +49(0)78 22 436-0
 Fax +49(0)78 22 436-124

SIMONA Plast-Technik s.r.o.
 U Autodílen 23
 CZ-43603 Litvínov-Chudeřín
 Czech Republic

SIMONA AMERICA Inc.
 64 N. Conahan Drive
 Hazleton, PA 18201
 USA

SIMONA ENGINEERING PLASTICS (Guangdong) Co. Ltd.
 No. 368 Jinou Road
 High & New Technology
 Industrial Development Zone
 Jiangmen, Guangdong
 China 529000

SALES OFFICES

SIMONA S.A. Paris
 Z.I. 1, rue du Plant Loger
 F-95335 Domont Cedex
 Phone +33(0)1 39 35 49 49
 Fax +33(0)1 39 91 05 58
 domont@simona-fr.com

SIMONA UK LIMITED
 Telford Drive
 Brookmead Industrial Park
 GB-Stafford ST16 3ST
 Phone +44(0)1785 22 24 44
 Fax +44(0)1785 22 20 80
 mail@simona-uk.com

SIMONA AG SCHWEIZ
 Industriezone
 Bäumlimattstraße 16
 CH-4313 Möhlin
 Phone +41(0)61 8 55 90 70
 Fax +41(0)61 8 55 90 75
 mail@simona-ch.com

SIMONA S.r.l. ITALIA
 Via Padana Superiore 19/B
 I-20090 Vimodrone (MI)
 Phone +39 02 25 08 51
 Fax +39 02 25 08 520
 mail@simona-it.com

SIMONA IBERICA SEMIELABORADOS S.L.
 Doctor Josep Castells, 26-30
 Polígono Industrial Fonollar
 E-08830 Sant Boi de Llobregat
 Phone +34 93 635 41 03
 Fax +34 93 630 88 90
 mail@simona-es.com
 www.simona-es.com

SIMONA-PLASTICS CZ, s.r.o.
 Zdebradská ul. 70
 CZ-25101 Říčany-Jažlovice
 Phone +420 323 63 78 3-7/-8/-9
 Fax +420 323 63 78 48
 mail@simona-cz.com
 www.simona-cz.com

SIMONA POLSKA Sp. z o.o.
 ul. H. Kamieńskiego 201-219
 PL-51-126 Wrocław
 Phone +48(0)71 3 52 80 20
 Fax +48(0)71 3 52 81 40
 biuro@simona.pl
 www.simona.pl

SIMONA FAR EAST LIMITED
 Room 501, 5/F
 CCT Telecom Building
 11 Wo Shing Street
 Fo Tan
 Hongkong
 Phone +852 29 47 01 93
 Fax +852 29 47 01 98
 sales@simona.com.hk

SIMONA ENGINEERING PLASTICS 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
 Fax +86 21 6267 0885
 shanghai@simona.com.cn

SIMONA AMERICA Inc.
 64 N. Conahan Drive
 Hazleton, PA 18201
 USA
 Phone +1 866 501 2992
 Fax +1 800 522 4857
 mail@simona-america.com
 www.simona-america.com