

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

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