

SIMONA® Synthetic Ice

*Skate and practice year round, indoors and out,
on the fastest synthetic ice surface available*

Super low friction formulation integrated into the polymeric sheet delivers the fastest synthetic ice skating surface available.
UV stability and inherent toughness combine for long product life.



SIMONA® Synthetic Ice sheet was developed specifically to provide an exceptionally fast and smooth skating surface with minimal maintenance. Unlike synthetic sheet products that use spray-on additives for sliding properties, the sheet's low friction technology is integrated into the material. That results in great glide properties without the need for messy, short-lived surface coatings or lubricants. It is also UV stabilized and inherently impact resistant even at cold temperatures, for durability and long life outdoors.

In addition, SIMONA's low stress manufacturing technology provides exceptional flatness in cutting, installation and in use.

This sheet is available in both standard "squared" edges and skate-ready "jigsaw puzzle" edges that piece together for easy installation.

Compare SIMONA Synthetic Ice sheet to any other polymeric ice skating surface and see for yourself why more and more municipalities, facilities owners and managers prefer it. Contact us for samples and an authorized installer near you.

Advantages

- Exceptionally fast surface
- Requires no messy surface coatings or spray-on lubricants
- Resists UV, sub-zero impacts
- Superior flatness for easy cutting and installation
- Resists staining and moisture

Applications

- Year round public and private indoor and outdoor skating surfaces
- Practice rinks
- Residential, scholastic and municipal facilities

Configurations

- Standard sizes
 - Thicknesses: 0.375, 0.5, 0.75 in. (9.53, 12.7, 19.1 mm)
 - Width: 49 in. (124.5 cm)
 - Length: 49, 98 in. (124.5, 248.9 cm)
- Standard color
 - Ice white (natural)
- Standard finish
 - Matte 2 sides
- Custom sizes, colors, finishes
 - Widths up to 97 in. (246.4 cm)
 - Lengths over 98 in. (248.9 cm)
 - Finishes: matte, textured
 - Colors: ice white
 - Custom items require minimums
- Skate-ready cut edges
 - Available for easy installation (See photo)



MATERIALS COMPARISON: GLIDE PROPERTIES

POLYETHYLENE-BASED (PE) MATERIALS TESTED	COEFFICIENT OF FRICTION* PER ASTM 1894 TEST	
	Static	Kinetic
UHMW-PE (Ultrahigh molecular weight PE)	0.185	0.126
UHMW-PE with additive	0.200	0.149
Synthetic Ice Modified PE Sheet	0.164	0.097

*Test conditions: Sled (7 oz/200 grams; speed 6 in. (150 mm)/minute. Plane: stainless steel. Temperature: 70 °F (20.6 °C)

SIMONA® SYNTHETIC ICE SHEET: TYPICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
Specific Gravity	ASTM D792	0.960
Water Absorption, %	ASTM D570	<0.01
MECHANICAL		
Tensile Strength @ yield	ASTM D638	4,400 psi (24.84 MPa)
Elongation @ break, %	ASTM D638	300
Flexural Modulus	ASTM D790	215,000 psi (1,138.5 MPa)
Izod Impact (notched) @73 °F (23 °C)	ASTM D256	No break
Low Temperature Brittleness	ASTM D747	-103 °F (-75 °C)
Hardness, Shore D	ASTM D2240	68
THERMAL		
Coeff. of Expansion in./in./°F x10 ⁻⁵ (mm/mm, °C x10 ⁻⁵)	ASTM D696	10 x 10 ⁻⁵ in./in., °F (18 x 10 ⁻⁵ mm, °C)
Heat Deflection Temp. @ 66 psi	ASTM D648	167 °F (72.8 °C)

*All tests at 73 °F (23 °C) in dry conditions unless otherwise noted.

Compare SIMONA Synthetic Ice's low friction performance

Independent laboratory tests show SIMONA Synthetic Ice outperforms other polymeric ice-skating surfaces on static and kinetic coefficient of friction (CoF). Static CoF indicates resistance to motion from a stopped position; kinetic indicates resistance once in motion.

Consider SIMONA's standard HDPE for other proven ice rink applications:

- Yellow: kick plates
- White: dasher boards, player benches
- Red: cap rails
- Custom colors: to match team colors

Fabrication:

SIMONA sheet can be sawn, routed, drilled and machined using conventional tools.

SIMONA offers the widest product range of PVC sheet and rod – FM 4910 rated sheet – chemical resistant materials from PVC, PP and PE to fluoropolymers – orthotics and prosthetics sheet – Boltaron aircraft sheet – plus proven products for boat building, outdoor furniture and many other industries.

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