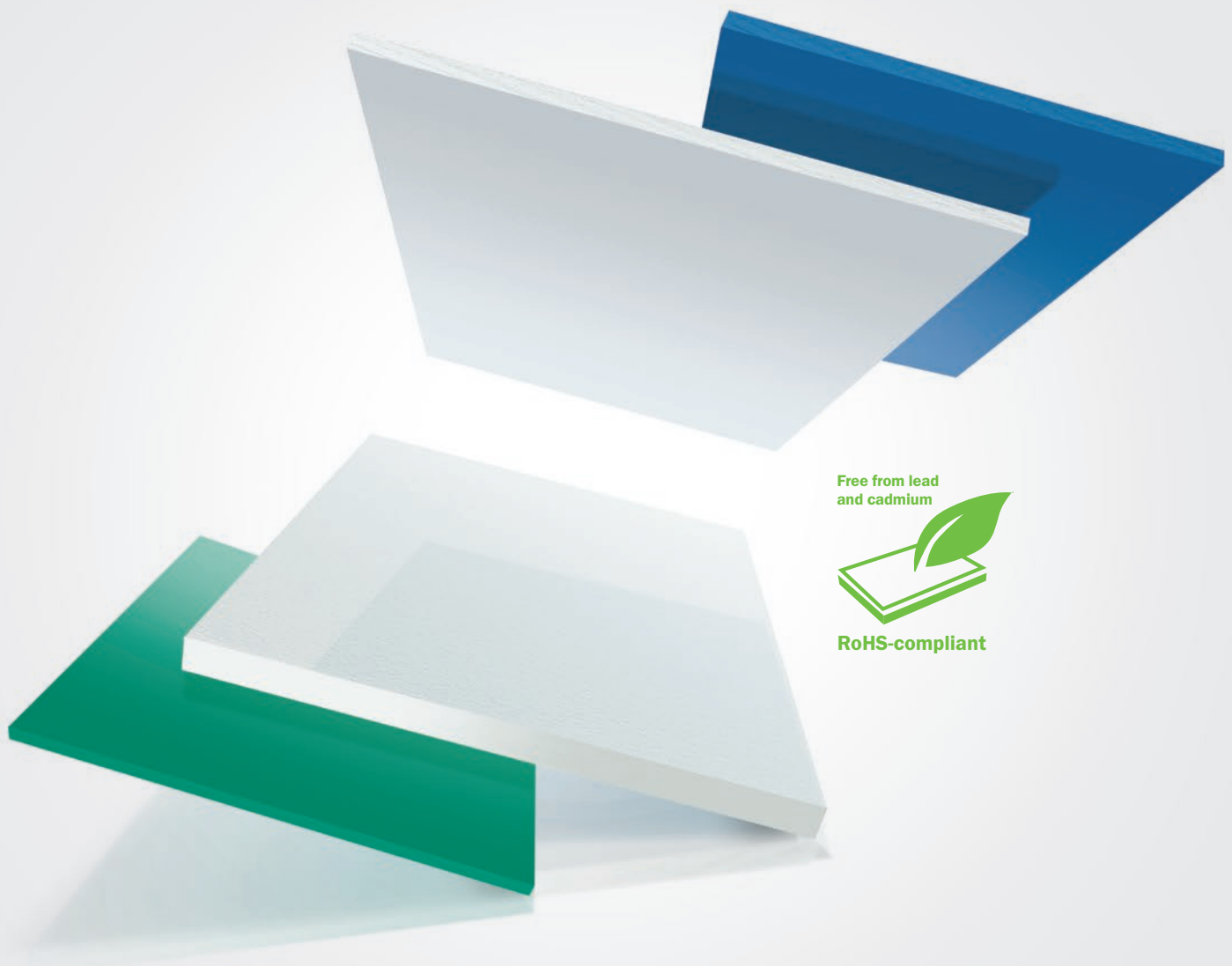


# SIMONA



Free from lead  
and cadmium



RoHS-compliant

## SIMONA® SIMOPOR

Lightweight PVC free-foam sheets

GLOBAL THERMOPLASTIC SOLUTIONS

# SIMONA® SIMOPOR – Lightweight PVC free-foam sheets



**The SIMONA® SIMOPOR product family comprises a range of PVC free-foam sheets that combine low density with ultralight design. All products within this line have a satin-smooth surface finish and offer exceptional versatility when it comes to processing.**

**Delivering premium quality and aesthetic appeal, SIMONA® SIMOPOR products are the perfect choice for applications centred around light and airy design.**

## **Versatile use**

- Exhibition stand design
- Display design
- Advertising signs
- Facade panels
- Room installations
- Furniture design
- Printing sector
- Construction and design
- and more

## **Excellent properties**

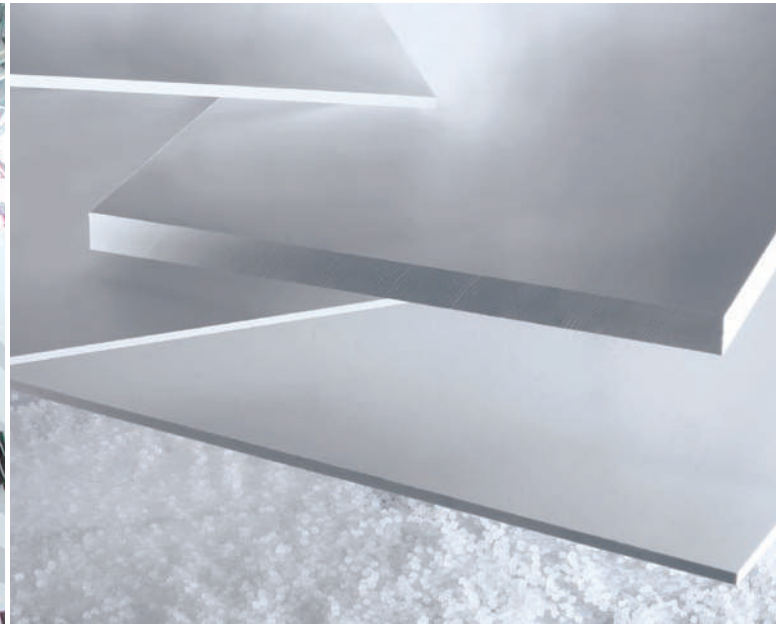
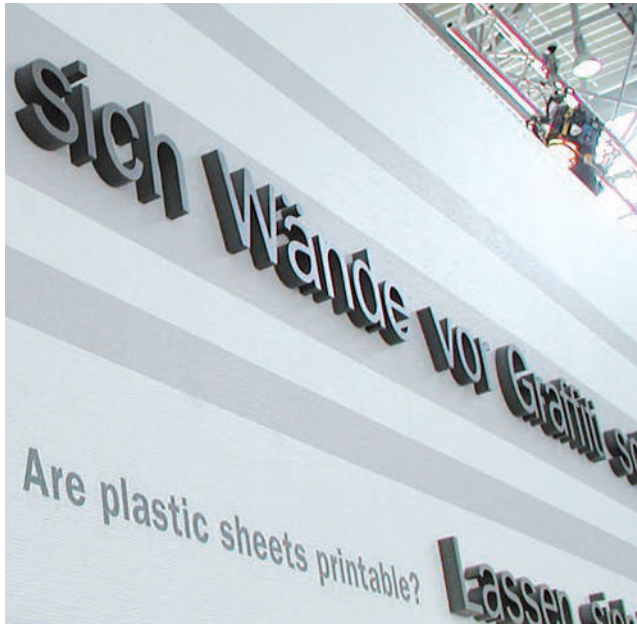
- Low weight
- Excellent weatherability
- Satin-smooth finish
- Very good printability (digital and screen printing)
- Dimensional stability
- Durability
- Low flammability (SIMOPOR-LIGHT, SIMOPOR-DIGITAL)
- REACH-compliant (as at: 18 April 2013)
- RoHS-compliant

Free from lead  
and cadmium



**RoHS-compliant**

# SIMONA® SIMOPOR – Product types



The **SIMONA® SIMOPOR** line includes a range of product types tailored to your specific requirements:

## **SIMONA® SIMOPOR-LIGHT**

SIMONA® SIMOPOR-LIGHT combines low density with high rigidity. The lightweight PVC free-foam sheets have excellent processing properties and a particularly attractive surface finish.

## **SIMONA® SIMOPOR-ULTRALIGHT**

SIMONA® SIMOPOR-ULTRALIGHT has an extremely low density, making it particularly light and easy to handle.

## **SIMONA® SIMOPOR-COLOR**

SIMONA® SIMOPOR-COLOR are fully coloured PVC free-foam sheets with a perfectly even surface finish. The sheets are supplied in the colours blue, yellow, green, grey, red and black – for a host of possibilities in exhibition, sign and display design.

## **SIMONA® SIMOPOR-DIGITAL**

SIMONA® SIMOPOR-DIGITAL is a specialty sheet for digital direct printing – in a brilliant white for more vibrant colours.

## **Customised solutions**

Alongside an extensive range of standardised products, we are also able to supply customised sheets tailored to your personal requirements – featuring special properties, formats and thicknesses.

## SIMONA® SIMOPOR-DIGITAL – Colours come to life



**Designed specifically for digital direct printing, SIMONA® SIMOPOR-DIGITAL offers the ultimate in process reliability for best-in-class results.**

SIMONA® SIMOPOR-DIGITAL includes a specially developed white pigment that ensures brilliant picture reproduction.

The sheets' exceptional surface finish facilitates ink acceptance even during high-speed processing.

SIMOPOR-DIGITAL sheets are the perfect choice for cost-effective digital direct printing.

### Properties

- Excellent printability on a wide range of flatbed printers
- Brilliant white for perfect colour reproduction
- Excellent ink acceptance
- Suitable for all UV and solvent inks
- UV-stabilised
- Antistatic properties (on request)
- Low weight
- High level of flatness
- Low flammability in accordance with DIN 4102 B1
- Excellent cost-effectiveness



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# SIMONA® SIMOPOR – QUV Accelerated Weathering Test



## Visibly better

Both SIMOPOR-DIGITAL and SIMOPOR-LIGHT display excellent levels of UV stability in QUV Accelerated Weathering Tests.

Whereas conventional PVC free-foam sheets show visible signs of yellowing when exposed to UV radiation and condensation over

a period of 1,200 hours, SIMONA® SIMOPOR sheets remain almost completely white even after 3,000 hours of exposure.

### QUV Accelerated Weathering Test

0 h	300 h	600 h	900 h	1,200 h	1,500 h	1,800 h	2,100 h	2,400 h	2,700 h	3,000 h
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#### SIMONA® SIMOPOR-DIGITAL



#### SIMONA® SIMOPOR-LIGHT




#### Conventional PVC free-foam sheet



Cycle: 4 hrs UV at 50 °C (UV light with a wave length of 340 nm) and 4 hrs condensation at 40 °C

# SIMONA® SIMOPOR – Product range and material specifications

## Product range

	SIMONA® SIMOPOR-LIGHT	SIMONA® SIMOPOR-ULTRALIGHT	SIMONA® SIMOPOR-COLOR	SIMONA® SIMOPOR-DIGITAL
<b>Extruded sheets</b> (sizes/thicknesses in mm)				
	2,000 x 1,000	1 to 19		
	2,440 x 1,220	1 to 19		3, 5, 10
	3,050 x 1,220	1 to 19	3, 5, 6	3, 5, 10
	3,050 x 1,530	1 to 19	3, 5, 6	3, 5, 10
	3,050 x 2,030	1 to 15	2 to 10	3, 5, 10 (black)
	Colours	white	white	blue, yellow, green, grey, red, black

Various sizes and thicknesses available from stock. Please contact our sales department for further details concerning availability: [sales@simona.de](mailto:sales@simona.de).  
Other sizes, thicknesses and colours available on request.

## Material specifications

		SIMONA® SIMOPOR-LIGHT	SIMONA® SIMOPOR-ULTRALIGHT	SIMONA® SIMOPOR-COLOR	SIMONA® SIMOPOR-DIGITAL
Density, g/cm <sup>3</sup> , DIN EN ISO 1183		0.550	0.460	0.600	0.550
Yield stress, MPa, DIN EN ISO 527		16	15	16	16
Elongation at yield, %, DIN EN ISO 527		3	3	3	3
Tensile modulus of elasticity, MPa, DIN EN ISO 527		900	600	1,000	900
Flexural modulus of elasticity, MPa, DIN EN ISO 178		1,100	930	1,400	1,100
Impact strength, kJ/m <sup>2</sup> , DIN EN ISO 179		12	12	12	12
Shore hardness D, DIN EN ISO 868		49	40	49	49
Mean coefficient of linear thermal expansion, K <sup>-1</sup> , ISO 11359-2		0.7 x 10 <sup>-4</sup>	0.7 x 10 <sup>-4</sup>	0.7 x 10 <sup>-4</sup>	0.7 x 10 <sup>-4</sup>
Specific surface resistance, Ohm, IEC 60093		> 10 <sup>15</sup>	> 10 <sup>15</sup>	>10 <sup>15</sup>	>10 <sup>15</sup>
Fire behaviour	DIN 4102	B1 low flammability 1 to 19 mm	normal flammability	normal flammability	B1 low flammability 3 to 10 mm
	NF P 92-501	M1: 3 to 10 mm	—	—	M1: 3 to 10 mm
Physiologically safe		no	no	no	no
Temperature range, °C		0 to +60	0 to +60	0 to +60	0 to +60

# SIMONA® SIMOPOR – Key benefits

## **+ Excellent processing characteristics**



Sawing



Bolting



Drilling



Milling



Backing/laminating



Water-jet cutting



Gluing



Warm bending



Cold curving



Printing



Spray painting



Die-cutting



## **+ Satin-smooth finish**

The unique surface of SIMONA® SIMOPOR-LIGHT is stylish in appearance and suitable for backing, spray painting and adhesive film coating.

## **+ Low flammability**

SIMONA® SIMOPOR-LIGHT is a low flammability sheet (DIN 4102 B1), which makes it the perfect choice for exhibition and display design.

## **+ Light but sturdy**

SIMONA® SIMOPOR-LIGHT sheets combine low density with good dimensional stability – a clear advantage in many fields of application.

## **+ More colours – more possibilities**

Choose from six colours in the SIMONA® SIMOPOR-COLOR line and let your creativity flow.



# Welcome to SIMONA – Put your trust in quality and expertise

**SIMONA is acknowledged as one of the leading producers and development partners in the field of thermoplastics. Drawing on our outstanding abilities in process engineering, we specialise in the production of sheets, finished parts, profiles, welding rods, rods, pipes, fittings and valves tailored to the most exacting standards.**

Our products and services are designed to deliver the very best quality imaginable. The management systems operated by SIMONA AG with regard to quality, the environment and energy resources are certified in accordance with DIN EN ISO 9001, DIN EN ISO 14001 and DIN EN ISO 50001.



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