



# SIMONA

**NEW:  
Made in  
Germany**

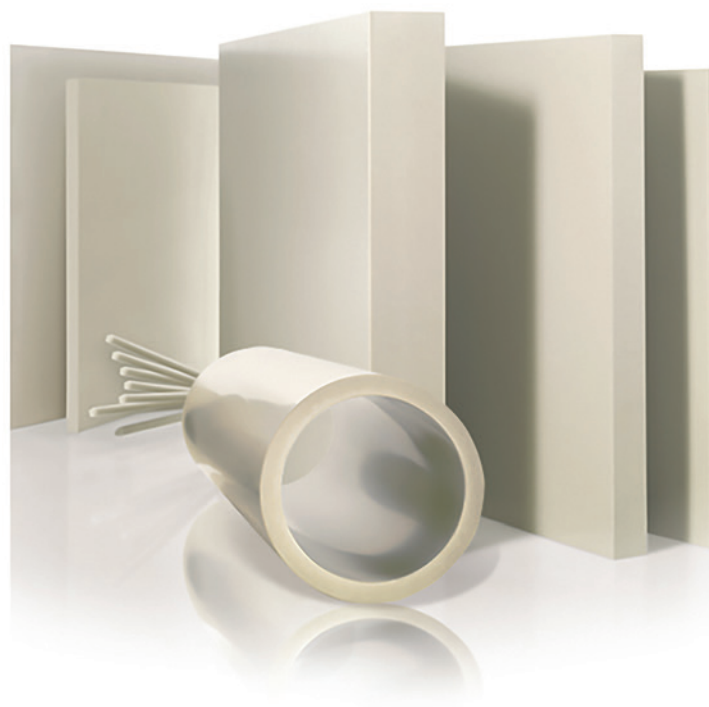
## **SIMONA® PVC-U FM 4910** **PRODUCED LOCALLY. CERTIFIED GLOBALLY.** **TAILORED TO YOUR CLEANLINESS REQUIREMENTS.**

Cleanliness goes hand in hand with safety, particularly when it comes to the fire behavior of materials. It is here that the FM 4910 standard has become a global benchmark: minimum flame spread, limited smoke emission, and maximum safety. Produced locally and certified globally, SIMONA® PVC-U FM 4910 meets the strictest cleanliness standards and will protect your operational processes to the greatest extent possible. Committed to offering the full breadth of our product range worldwide, we have now also commenced production in Germany, thereby complementing our operations in China and the United States.

SIMONA® PVC-U FM 4910 is a high-quality rigid PVC that is available as a sheet product and in the form of matching welding rods. It meets the strict requirements of FM Global standards for fire behavior in cleanrooms. These international standards set out specific requirements relating to the fire behavior of materials and also serve as a basis for testing. FM 4910-compliant materials combine the benefits of minimal flame spread and limited smoke emission in the event of fire. This is to be seen as an essential safety factor within the semiconductor industry.

Compared to other types of PVC used in cleanroom applications, SIMONA® PVC-U FM 4910 offers the benefit of outstanding impact resistance, high mechanical strength, and improved weldability. Tests have shown that it is much easier and safer to process than other FM 4910-listed PVCs. Welding rods based on the same formulation are available to ensure perfect compatibility – ideal for consistent and reliable processing. Alongside its technical performance, the sheet product also excels when it comes to appearance: the white and ivory-colored high-gloss surface visibly enhances the overall design of cleanrooms. SIMONA® PVC-U FM 4910 thus combines maximum safety, ease of processing, and stylish design in a single product – an all-embracing solution for cleanroom and semiconductor applications.

The SIMONA® SEMICON range is widely acknowledged as one of the most comprehensive thermoplastic product portfolios for the semiconductor industry: semi-finished products as well as pipes and fittings made of PVC, PP, and high-performance fluoropolymers such as PVDF, ECTFE, FEP, and PFA for a temperature range up to 260 °C.



## KEY BENEFITS

### ■ Improved safety for your processes and systems

FM 4910-approved: minimal smoke emission and hardly any flame spread – for maximum safety in cleanrooms and reduced risk of production downtime.

### ■ Efficient processing without compromise

Sheets and welding rods from the same formulation with a welding factor close to 1.0 for a seam strength comparable to that of the base material. This means minimal finishing effort, shorter assembly times, and maximum process reliability.

### ■ Reliability in challenging chemical applications

Highest resistance to strong acids and alkalis as well as outstanding impact resistance and mechanical strength – for a long service life and lower maintenance costs.

### ■ Professional cleanroom design

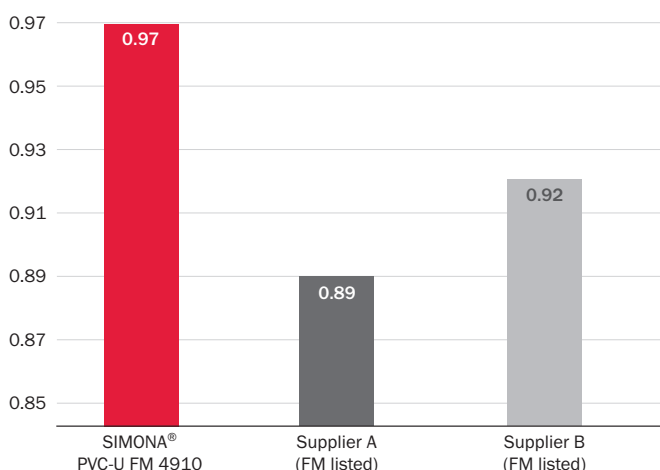
The white and ivory high-gloss finish creates a clean, modern environment and is also compatible with existing installations.



## Material specifications

Properties	Test Standard	Figure
Relative density (specific gravity)	DIN EN ISO 1183	1.53 g/cm <sup>3</sup>
Tensile modulus of elasticity	DIN EN ISO 527	3,600 MPa
Yield stress	DIN EN ISO 527	50 MPa
Notched impact strength Charpy	DIN EN ISO 179-1eA	5 kJ/m <sup>2</sup>
Shore hardness D (15s)	DIN EN ISO 868	75
Vicat B	DIN EN ISO 306	75 °C
Temperature range		0–60 °C
Spec. surface resistance	DIN EN ISO 61340	≥ 10 <sup>13</sup> Ω
Mean coefficient of linear thermal expansion	ISO 11359-2	70 x 10 <sup>-6</sup> K <sup>-1</sup>
Fire behavior	FM 4910	Specification tested

## Welding factor

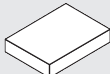


## APPLICATIONS

- Enclosures for wet-chemical process equipment (e.g., in cleanrooms)
- Chemical distribution systems and valve boxes
- Cleaning modules
- Wafer transfer interfaces
- Switch cabinets


## Product Range

### Extruded sheets (sizes/thicknesses in mm)

	3,000 x 1,500	6–25
	Colors	white, ivory (high gloss)

Customized sizes and thicknesses as well as dimensions in imperial measurements on request

### Welding rod (thicknesses in mm)

	Round rod	3.0–4.0
	Colors	white, ivory

Customized profiles on request

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range.

