

Trade name: **SIMONA® PE 100 black**

Revision: 29.01.2018

Date of printing: 27.02.2025

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Data sheet update	29.01.2018
Moulding compound extruded	PE,EACH,50 T 003
Extruded to moulding compound standard	DIN EN ISO 17855-1
Moulding compound pressed	PE,QACH,50 T 003
Pressed to moulding compound standard	DIN EN ISO 17855-1
Density, g/cm <sup>3</sup> , DIN EN ISO 1183	0.960
Tensile modulus of elasticity, MPa, DIN EN ISO 527	1,100
Yield stress, MPa, DIN EN ISO 527	23
Elongation at yield, % , DIN EN ISO 527	9
Impact strength, kJ/m <sup>2</sup> , DIN EN ISO 179	without break
Notched impact strength Charpy, kJ/m <sup>2</sup> , DIN EN 179-1eA	25
Dielectric strength, kV/mm , DIN IEC 60243-1	47
Ball indentation hardness, MPa, DIN EN ISO 2039-1	40
Shore hardness D (15 s), DIN EN ISO 868	64
Mean coefficient of linear thermal expansion, K <sup>-1</sup> , ISO 11359-2	1,8 x 10 <sup>-4</sup>
Thermal conductivity, W/m * K , DIN EN 12667	0.38
Surface resistivity, Ohm , DIN EN 61340	≥ 10 <sup>13</sup>
Temperature range, °C	-50 to +80
Fire behaviour DIN 4102	DIN 4102 B2 normal flammability (self-assessment without test certificate)
Comments	
Food compliance EU 10/2011	yes
Food compliance FDA	no

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All specifications are deemed to be approximate values in respect of the specific material and may vary depending on the processing methods used. In general, data specified applies to average values measured on extruded sheets with a thickness of 4 mm. In the case of sheets manufactured by means of pressing, testing is generally performed on sheets with a thickness of 20 mm. Deviations from the values specified are possible if the sheets in this thickness are not available. In the case of backed sheets, all technical specifications relate to the non-backed base sheets. Information presented herein is not necessarily applicable to other products (e.g. pipes, solid rods) of the same material or products that have undergone downstream processing. Suitability of materials for a specific field of application must be assessed by the party responsible for processing or the end-user. All technical specifications presented herein are designed merely to provide assistance in terms of project planning. They do not constitute a guarantee of specific properties or qualities. All technical specifications and temperature ranges were determined in short-term tests and therefore cannot be used for design work for permanent, long-term use that requires long-term properties. For further information, please contact our Technical Service Centre at [tsc@simona.de](mailto:tsc@simona.de).