

Physical Properties

	Value	Unit	Verification
Color	black	-	
Density	1.83	g/cm ³	DIN 66137
Thickness	0.6	mm	

Mechanical Properties

	Value	Unit	Verification
Flexural modulus of elasticity (23°C/73.4°F)	17	GPa	ISO 178
Flexural strength (23°C/73.4°F)	28.3	MPa	ISO 178

Electric Properties¹

Measured @ 2 N/mm² contact force and 0,6 mm specimen thickness, Davis-method

	Value	Unit	Verification
Volume resistivity	0.21	Ωcm	-
Area-specific resistance	13.0	mΩcm ²	-
Volume conductivity	4.8	S/cm	-
Bulk conductivity	66.7	S/cm	-

Thermal Properties

	Value	Unit	Verification
Vicat-softening temperature	130	°C	DIN EN ISO 306
Coefficient of linear expansion (lengthways)	19.8	1/K*10 ⁻⁶	DIN 53752
Coefficient of linear expansion (crossways)	12.2	1/K*10 ⁻⁶	DIN 53752
Specific heat capacity	0.93	J/(g*K)	DIN EN ISO 22007-4
Thermal conductivity (23°C/ 73.4°F) (through-plane)	24.8	W/m*K	DIN EN ISO 22007-4
Thermal diffusivity	14.1	mm ² /s	DIN EN ISO 22007-4

Permeation Properties (against H₂)¹

Measured @ 2,53 cm² specimen area, 8 min observation time and 0,6 mm specimen thickness (pressure difference H₂-air: 683 mbar @ 294 K)

	Value	Unit	Verification
Permeation rate	7,48	10 ⁻⁷ cm/s	-
Permeation coefficient	4,5	10 ⁻⁸ cm ² /s	-

¹: measured at ZBT GmbH (www.zbt-duisburg.de) with in-house developed testing devices.

Storing & Handling-Instructions:

- Store dry and horizontal lying (onto surfaces) in a box (recommended with interplays), max 100 pcs. stacked
- Visual inspection before usage strongly encouraged to avoid operation failures as a consequence of unnoticed defects
- Long-time-storage below 30°C / 76 °F
- Handle carefully, prevent bending and do not move the plates against each other in particular with applied force
- To prevent in-cell contamination we recommend handling with gloves in general
- Final cleaning before installation (e.g. with isopropyl alcohol) advised
- Based on our experiences holes and / or function related structures should be realized by milling / drilling to achieve best results