

## TECACOMP PP HTE PW black 1014974 - Compounds

### Chemical Designation

PP (Polypropylene)

### Colour

black

### Density

1.96 g/cm<sup>3</sup>

### Fillers

graphite

### Main features

- high electrical conductivity
- high thermal conductivity
- very good chemical resistance
- for hot compression moulding

### Target Industries

- bipolar plates for fuel cells
- separator plates for redox-flow batteries

Mechanical properties	parameter	value	unit	norm	comment
Flexural strength		41	MPa	DIN EN ISO 178	
Modulus of elasticity (flexural test)		12300	MPa	DIN EN ISO 178	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		0	°C	-	1)
Melting temperature		165	°C	-	2)
Heat distortion temperature		148	°C	ISO-R 75 Method A	3)
Service temperature	short term	-30 - 130	°C	-	4)
Service temperature	long term	-30 - 90	°C	-	
Thermal conductivity	in-plane	66	W/(K*m)	ISO 22007-4:2008	
Thermal conductivity	through-plane	20	W/(K*m)	ISO 22007-4:2008	
Electrical properties	parameter	value	unit	norm	comment
Specific electrical conductivity		168	S/cm	DIN EN ISO 3915	
volume resistance		5,95 x 10 <sup>10</sup>	Ω*cm	DIN EN ISO 3915	
Other properties	parameter	value	unit	norm	comment
Water absorption	23 °C / 50 % relative humidity up to saturation	< 0,1	%	DIN EN ISO 62	

→ Please refer to the separately enclosed processing guidelines for detailed processing instructions.

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