TECACOMP PPS HTE PW black 1050231 - Compounds

Chemical Designation
PPS (Polyphenylensulfide)

Colour
black

Density
1.96 g/cm^3

Fillers
graphite, carbon

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

Target Industries
- bipolar plates for fuel cells
- hydrogen industry
- heat exchanger

Mechanical properties	*parameter*	*value*	*unit*	*norm*		*comment*
Flexural strength		65	MPa	DIN EN ISO 178		
Thermal properties	***parameter***	***value***	***unit***	***norm***		***comment***
Glass transition temperature		90	°C	-	1)	(1) literature value (2) literature value (3) literature value (4) literature value
Melting temperature		280	°C	-	2)	
Heat distortion temperature		276	°C	ISO-R 75 Method A		
Service temperature	short term	260	°C	-	3)	
Service temperature	long term	230	°C	-	4)	
Thermal expansion (CLTE)	at - 30 - 30 °C	6	10^{-6} K^{-1}	DIN EN ISO 11359-1;2		
Thermal expansion (CLTE)	at 30 - 70 °C	7	10^{-6} K^{-1}	DIN EN ISO 11359-1;2		
Thermal expansion (CLTE)	at 110 - 140 °C	13	10^{-6} K^{-1}	DIN EN ISO 11359-1;2		
Thermal expansion (CLTE)	at 140 - 200 °C	17	10^{-6} K^{-1}	DIN EN ISO 11359-1;2		
Thermal expansion (CLTE)	at 200 - 230 °C	22	10^{-6} K^{-1}	DIN EN ISO 11359-1;2		
Thermal conductivity	in-plane	38	W/(K*m)	ISO 22007-4:2008		
Thermal conductivity	through-plane	9	W/(K*m)	ISO 22007-4:2008		
Electrical properties	***parameter***	***value***	***unit***	***norm***		***comment***
Specific electrical conductivity	in-plane	122	S/cm	DIN EN ISO 3915		
volume resistance		8,2 x 10^{-3}	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.

Our information and statements reflect to current state of our knowledge and shall inform about the products and their applications. They do not assure or guarantee chemical resistance, quality of products and their merchantability in a legally binding way. Our products are not defined for the use in medical or dental implants. Existing commercial patents have to be observed. The corresponding values and information are no minimum or maximum values, but guideline values that can be used primarily for comparison purposes for material selection. These values are within the normal tolerance range of product properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. Unless otherwise noted, these values were determined by tests on injection moulded samples, dry as moulded. The customer is sorely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review, the most recent update can be found at ensingerplastics.com. Technical changes reserved.

Ensinger India Engineering Plastics Pvt Ltd.
2205, 22nd Floor, SOLUS Building,
Hiranandani Estate, Thane West - 400607,
India

Phone +91 22-49797082
www.ensinger.in

Date: 2026/04/27

Version: AK