Technical Specification Sheets

T: +44 (0) 116 289 3343 E: info@facadecreations.co.uk W: www.facadecreations.co.uk
Registered Office Address: 124 City Road, London, England, EC1V 2NX. Registered in England, Company Number: 16267073

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	

While the information on this data sheet is believed to be correct at the time of publication, it is the customer's responsibility to ensure the correct use and application of this product. The buyer undertakes all liability in respect of the application, processing or use of this information or product, whose quality and other properties he shall verify, or any consequence thereof.