

Material Data Sheet *HT200+*

This HT200+ material is suitable for low and high temperature PEM fuel cells. Thanks to the unique properties of carbon fiber, this materials shows very high electrical conductivity, high flexibility, excellent mechanical properties, resistance to high temperature, and outstanding chemical stability.



Physical data

	Units	Values
Nominal web thickness	mm	0.23
Density	g/cm ³	1.69
Plate density homogeneity	g/cm3	STD < 0.04 g/cm ³
Hydrogen permeability	[mol/s/m ² /MPa]	< 3 x 10 ⁻⁰⁵ @ Std pressure and temperature
Thermal conductivity (through plane)	W·m ⁻¹ ·K ⁻¹	0.7
Thermal conductivity (in plane)	W·m ⁻¹ ·K ⁻¹	4.3
Areal Specific Resistance (through plane)	mΩ·cm ²	< 7
Max temperature use	°C	200

Mechanical properties

	Units	Values
Young modulus	GPa	15.1
Ultimate stress	MPa	62
% of elongation before break	%	0.52
Poisson coefficient	-	0.19
Flexural strength	MPa	139.5
Thermal expansion @80°C	1/K	1.9 x 10 ⁻⁵
Thermal expansion @180°C	1/K	4.3 x 10 ⁻⁶

HOW TO REACH US



3 Avenue Didier Daurat
31400 Toulouse – France



contact@hycco.fr



+33(0)6 67 93 41 01



www.hycco.fr

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