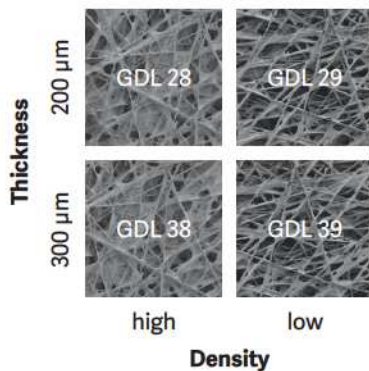


Broad Base. Best Solutions.

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SIGRACET® GDL

Gas Diffusion Layer 2D non-woven fabric



SIGRACET® Gas Diffusion Layers (GDLs) are used in fuel cells. The excellent electrical conductivity and the effective water management lead to superior stack performance and durability under a wide variety of operating conditions.

Standard treatment

- AA: Substrate based on high temperature treated C-fiber paper
- BC: Substrate with hydrophobic treatment* and micro porous layer*

* Different PTFE loading available on request

Standard format

Roll material on 12" core with standard 450 mm roll width

Material data of SIGRACET® GDL 2D non-woven fabric

Properties	Units	GDL-Substrates				Fully treated GDLs			
		GDL 28AA	GDL 29AA	GDL 38AA	GDL 39AA	GDL 28BC	GDL 29BC	GDL 38BC	GDL 39BC
Ash content ¹⁾	%	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Areal weight ²⁾	g/m ²	55 ± ¹⁰	40 ± ¹⁰	75 ± ¹⁰	50 ± ¹⁰	105 ± ¹⁰	90 ± ¹⁰	125 ± ¹⁰	105 ± ¹⁰
(@ 5 psi load) ³⁾		190 ± ³⁰	190 ± ³⁰	280 ± ³⁰	280 ± ³⁰	235 ± ²⁰	235 ± ²⁰	325 ± ²⁵	325 ± ²⁵
Thickness (@ 1 MPa load) ⁴⁾	µm	155 ± ³⁰	125 ± ³⁰	225 ± ³⁰	175 ± ³⁰	210 ± ²⁰	190 ± ²⁰	280 ± ²⁵	245 ± ²⁵
(@ 2 MPa load) ³⁾		140 ± ³⁰	105 ± ³⁰	195 ± ³⁰	135 ± ³⁰	195 ± ²⁰	170 ± ²⁰	250 ± ²⁵	210 ± ²⁵
Compressibility (@ 1 MPa) ⁵⁾	%	ca. 18	ca. 34	ca. 20	ca. 38	ca. 11	ca. 19	ca. 14	ca. 21
TP El. Resistance (@ 1 MPa) ⁶⁾	mΩ x cm ²	< 4	< 5	< 5	< 5	< 11	< 12	< 11	< 12
IP Pressure Drop (@ 1 MPa)	bar	0.4	0.3	0.2	0.2	0.9	0.8	0.5	0.4

Specified material properties: ²⁾ Internal, based on DIN EN ISO 536; ⁴⁾ Internal, based on DIN EN ISO 9073; ⁶⁾ Internal, based on DIN 51911

Additional data: ¹⁾ DIN 51903; ³⁾ Internal, based on DIN EN ISO 9073; ⁵⁾ Internal, based on DIN 53885

Abbreviation/Units: TP = Through plane; IP = In plane; 5 psi = 0.0345 MPa

Note: All other values are averages derived from SGL production database subject to typical production tolerances. These values do no constitute a product specification.

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This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should therefore not be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed. The quality of our products is guaranteed under our "General Conditions of Sale".

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