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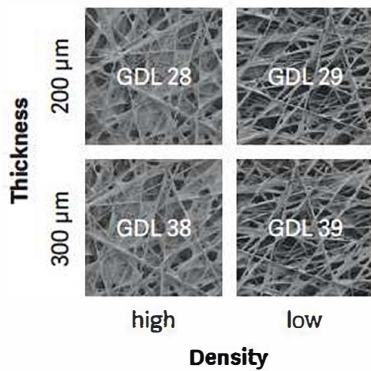


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SIGRACET® GDL

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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