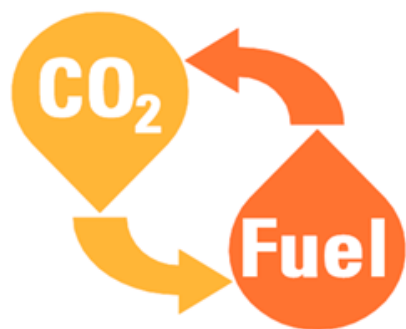




Dioxide Materials

ELECTRIFYING THE CHEMICAL INDUSTRY

PRODUCT CATALOG 2021-2022

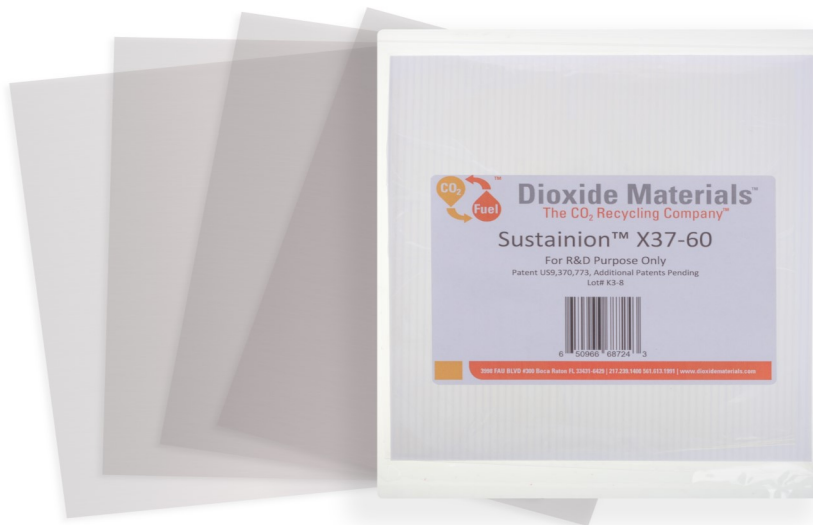


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Alkaline Exchange Membranes





**Sustainion® B22-50
grade T**

- ✓ Reduced Swelling
- ✓ Reduced Metal Crossover
- ✓ Teflon Reinforced For Durability
- ✓ Recommended For Batteries



**Sustainion® E30-50
grade T**

- ✓ Reduced Swelling
- ✓ Reduced Metal Crossover
- ✓ Teflon Reinforced For Durability
- ✓ Recommended For Batteries



**Sustainion® E28-50
grade T**

- ✓ Reduced Swelling
- ✓ Reduced Metal Crossover
- ✓ Teflon Reinforced For Durability
- ✓ Recommended For Batteries

Size	SKU
20cm x 28cm	68871

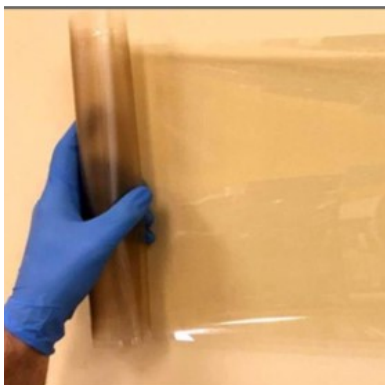
Size	SKU
20cm x 28cm	68873

Size	SKU
20cm x 28cm	68875

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Sustainion® X37-50 Grade RT Membrane

- ✓ Standard For CO₂ Electrolysis
- ✓ Standard for AEM Water Electrolysis

Sustainion® X37-FA Membrane

- ✓ Reduced Swelling
- ✓ Recommended For Electrolyzers

Sustainion® X37-50 Grade T Membrane

- ✓ Teflon Reinforced For Durability
- ✓ Recommended For Electrolyzers

Size	SKU
4cm x 4cm	68726
12cm x 12cm	68727
22cm x 28cm	68725

Size	SKU
12cm x 12cm	68867

Size	SKU
20cm x 28cm	68728

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**Sustainion® X37-50
Grade 60 Membrane**

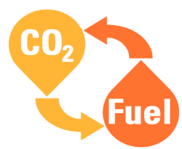
- ✓ Standard For CO₂ Electrolysis
- ✓ Standard for AEM Water Electrolysis
- ✓ Reduced Plasticizer

Size	SKU
22cm x 28cm	68724

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**Dioxide
Materials**

GDLs And Catalyst Coated Electrodes





Cathode Electrode For Water Electrolyzer

- ✓ Good for Hydrogen evolution reaction (HER) in alkaline pH
- ✓ High current density
- ✓ Long life-time of up to 10,000 hours



Anode Electrode For Water Electrolyzer

- ✓ Ideal for Oxygen evolution reaction (OER) in alkaline pH
- ✓ High current density
- ✓ Long life-time of up to 10,000 hours

Size	SKU
20cm x 20cm	68742
10cm x 10cm	68743

Size	SKU
20cm x 20cm	68744
10cm x 10cm	68745

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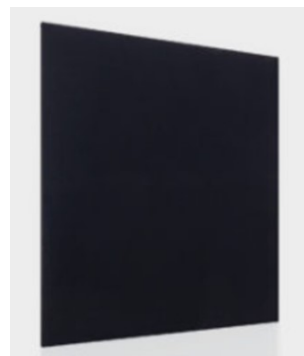


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Anode Electrode for Carbon Dioxide Electrolyzer

- ✓ Good for oxygen evolution reaction (OER)
- ✓ High current density
- ✓ Long life-time of up to 4,000



Cathode Electrode for Carbon Dioxide Electrolyzer

- ✓ Good for CO₂ conversion to CO
- ✓ High Faradaic Efficiency to CO
- ✓ High current density
- ✓ Long life-time of up to 4,000 hours

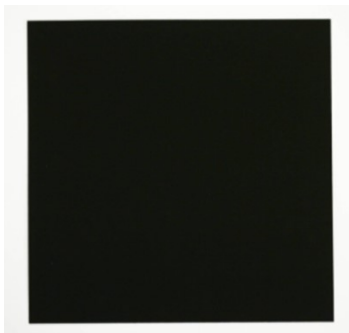
Size	SKU
20cm x 20cm	68750
10cm x 10cm	68751
5cm x 5cm	68752
3cm x 3cm	68749

Size	SKU
20cm x 20cm	68753
10cm x 10cm	68754
5cm x 5cm	68755
2.5cm x 2.5cm	68756

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needs



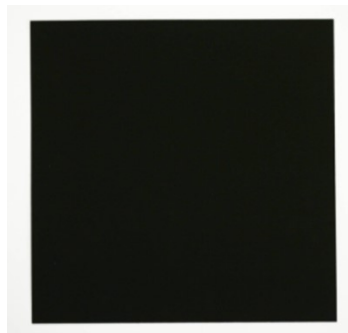
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GDL – AvCarb GDS5130

- ✓ Standard cathode substrate for CO₂ Electrolyzer
- ✓ Substrate for fuel cells

Size	SKU
40cm x 40cm	68840



GDL – Sigracet 39BB

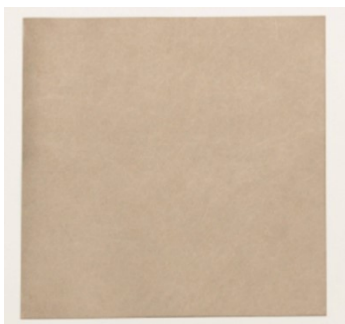
- ✓ Alternate cathode substrate for CO₂ Electrolyzer
- ✓ Substrate for fuel cells

Size	SKU
40cm x 40cm	68838
20cm x 20cm	68837

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needs

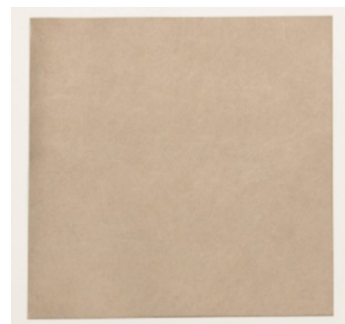


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GDL – Ni Fiber Paper

- ✓ Standard cathode substrate for water electrolyzer
- ✓ Finer Ni fiber
- ✓ High porosity
- ✓ Good for two-phase flow



GDL – SS Fiber Paper

- ✓ Standard anode substrate for water electrolyzer
- ✓ Finer SS fiber
- ✓ High porosity
- ✓ Good for two-phase flow

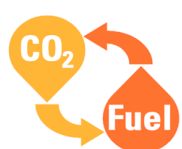
Size	SKU
20cm x 20cm	68844
10cm x 10cm	68843

Size	SKU
20cm x 20cm	68841

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needs



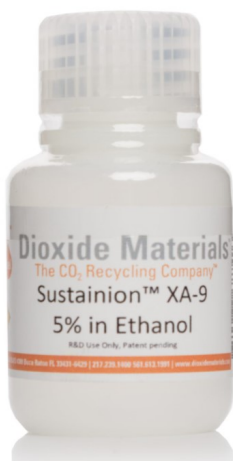
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Dioxide Materials

Alkaline Ionomers

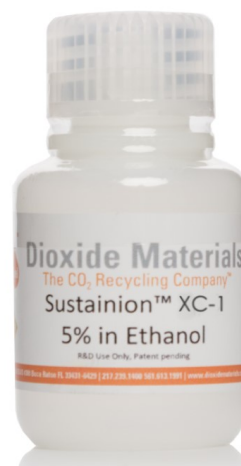




Sustainion® XA-9 Alkaline Ionomer

- ✓ Standard For CO₂ Electrolysis
- ✓ Inhibits Water Electrolysis

Size	SKU
25 ml (5% in ethanol)	68740



Sustainion® XC-1 Alkaline Ionomer

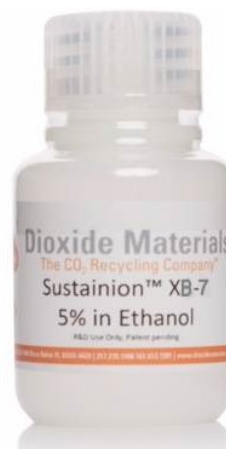
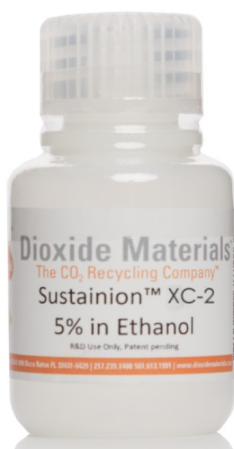
- ✓ Increased Hydrophilicity
- ✓ Designed For Use In Cathodes Of CO₂ Electrolyzers
- ✓ Inhibits Water Electrolysis

Size	SKU
25 ml (5% in ethanol)	68737

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needs



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Sustainion® XC-2 Alkaline Ionomer

- ✓ Designed For Use In Cathodes Of CO₂ Electrolyzers
- ✓ Inhibits Water Electrolysis

Size	SKU
25 ml (5% in ethanol)	68738

Sustainion® XB-7 Alkaline Ionomer

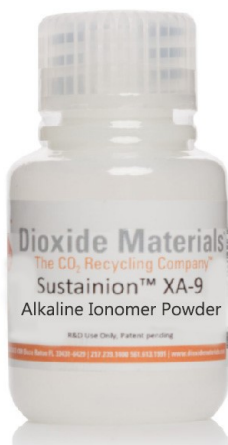
- ✓ Designed For Alkaline Fuel Cells

Size	SKU
25 ml (5% in ethanol)	68739

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needs



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Sustainion® XA-9 Alkaline Ionomer Powder

- ✓ Ionomer in solid form for easy storage . Can be dissolved in solvents
- ✓ Inhibits Water Electrolysis
- ✓ Standard For CO₂ Electrolysis

Size	SKU
1.25 gram	68830

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Complete Electrolyzers





**Complete Electrolyzer
to convert CO₂ to
Formic Acid**

- ✓ Convert CO₂ To Formic Acid
- ✓ Cell Fully Assembled And Tested

**Complete 5 cm² CO₂
Electrolyzer**

- ✓ Convert CO₂ To CO
- ✓ Cell Fully Assembled And Tested

**Complete 5 cm² AEM
Water Electrolyzer**

- ✓ Convert Water To Hydrogen
- ✓ Cell Fully Assembled And Tested

Size	SKU
5 cm ²	68786

Size	SKU
5 cm ²	68732

Size	SKU
5 cm ²	68731

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needs



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Electrolyzer Hardware





**Individual 5 cm² Nickel
Flowfield for Anode
with Serpentine
Channel V2.0**

**Individual 5 cm² Nickel
Flowfield for Cathode
with Serpentine
Channel V2.0**

**Individual 5 cm² T3
Titanium Flowfield
with Serpentine
Channel V2.0**

Size	SKU
5 cm ²	68809

Size	SKU
5 cm ²	68735

Size	SKU
5 cm ²	68733

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**Individual 904 L
Stainless Steel
Flowfield with
Serpentine Channel**

**Middle Flow Channel
for 5 cm² Formic Acid
Electrolyzer**

**Individual 5 cm² T4
Titanium Flowfield for
Formic Acid
Electrolyzer**

Size	SKU
5 cm ²	68734

Size	SKU
5 cm ²	68787

Size	SKU
5 cm ²	68736

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**Individual 25 cm²
Titanium Flowfield for
Anode with Serpentine
Channel**

**Individual 25 cm² 904L
SS Flowfield for
Cathode with
Serpentine Channel**

**Individual 25 cm²
Nickel Flowfield for
Anode with Serpentine
Channel**

Size	SKU
25 cm ²	68815

Size	SKU
25 cm ²	68812

Size	SKU
25 cm ²	68811

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needs**



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**Individual 25 cm²
Nickel Flowfield for
Cathode with
Serpentine Channel**

Size	SKU
25 cm ²	68810

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needs**



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Anode Gasket for 5 cm² Electrolyzer with Varied Thickness

Thickness	SKU
100 um	68849
200 um	68850
250 um	68851
300 um	68853
500 um	68852

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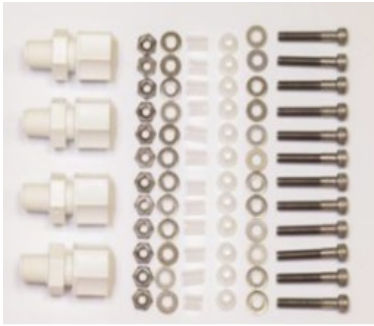
Cathode Gasket for 5 cm² Electrolyzer With Varied Thickness

Thickness	SKU
100 um	68859
200 um	68860
250 um	68861
300 um	68863
500 um	68862

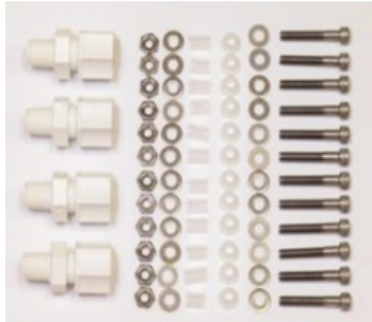
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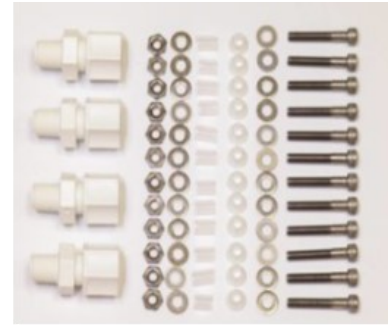
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**Nut, Bolt, Insulator Kit
for 25 cm² Electrolyzer**



**Nut, Bolt, Insulator Kit
for 5 cm² Electrolyzer**



**Nut, Bolt, Insulator Kit
for 5 cm² Formic Acid
Electrolyzer**

SKU

68773

SKU

68771

SKU

68772

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O-ring for 25 cm² Electrolyzer



O-ring for 5 cm² Electrolyzer

SKU
68820

SKU
68770

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Humidifier Kit

SKU

68764



Heater

SKU

68760



Ion Exchange Resin Beads

SKU

68785

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Barbed Tube Connector

Luer-Lok Connector

Humidifier Tubing

SKU

68765

SKU

68766

SKU

68767

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