#### 3. Perfluorinated ion exchange membrane



perfluorinated ion exchange membrane N-115 117,1110 N-211 212 N312 N313

#### **Introduction :**

N Series perfluorinated ion exchange membrane is made from SiO<sub>2</sub> and Perfluorinated ion exchange Resin by method of New tape-casting. The film has very strong tensile strength, high conductive ratio, good chemical properties etc. It can be used in hight temperature fuel cells and self-humidifying fuel cells.

#### Package:

N Series film is packed by plastic bucket .Special package please indicate.

## Thickness and weight:

#### SpecificationDetailed sizes

Thickness (um)	size (mm)
30	160x140
50	160x140
50	200x140
100	200x140
200	200x140
500	260x130

The thickness and weight are only approximate numbers. Not the absolute accuracy.

Size:

Length x width =600mm x 600mm

Special size:

We can offer special size film, if MOQ gets to 20Sqm, we won't collect the extra charges, if less than 20Sqm, we will collect suitable labor cost and other cost .Special thickness please contact market2@prochema.cn 1mil=25.4um

N performance

Performance	Test Data	Test Method
Tensile Strength	40MPa (23,50% RH,Isotropy)	ASTMD882
Tensile Modulus	630MPa (23□,50% RH,Isotropy)	ASTMD882
Linear expansion	6±1%((23□,from 50% RH,to water soaked)	ASTM756
Water uptake	50%±5% (100□,1h)	ASTMD570
Conductivity	0.1S/cm	25 ZAWODZINSKI
Acid capacity	1.0meq/g	titrimetry

# FUEL CELL N-31X $\square$ SiO<sub>2</sub> $\square$

## **Perfluorinated Ion exchange Film**

#### **Introduction :**

N-31x(SiO<sub>2</sub>) is hybrided by SiO<sub>2</sub> and Perfluorinated ion exchange Resin . It can be used in hight temperature fuel cells and self-humidifying fuel cells.

## Package:

#### Thickness and weight:

Γ	Туре	Thickness (um)	Weight (g/m <sup>2</sup> )
Γ	N-312(SiO2)	50	110
Γ	N-314(SiO2)	100	220

Reinforced perfluorinated ion exchange membrane N-417 4110

## **Introduction :**

N -41(PTFE )Series perfluorinated ion exchange membrane is made from SiO<sub>2</sub> and Perfluorinated ion exchange Resin by method of New tape-casting. The film has very strong tensile strength, high conductive ratio, good chemical properties etc. After composited PTFE reinforced net, the strength improved much and lower swelling ration . It can be used in high temperature fuel cells and self-humidifying fuel cells.

# Package:

N Series film is packed by plastic bucket .Special package please indicate.

## Thickness and weight:

Туре	Thickness □ µM□	Weight $\Box G/M^2 \Box$
N-417	175	
N-4110	250	

N performance

Performance	Test Data	Test Method
Linear expansion	2%((23 ,from 50% RH,to water soaked)	ASTM756
Water uptake	30%±5% (100□,1h)	ASTMD570
Conductivity	0.1S/cm	25 ZAWODZINSKI
Acid capacity	1.0meq/g	titrimetry