

Response Opinion for PFAS Proposal

On behalf of Beijing Qingchi Technology Co., Ltd., we would like to express greetings to the five countries proposing the ECHA and PFAS management control protocol. Our company has always made unremitting efforts to comply with the domestic and international regulations. We support the ambitious attempts of EU to reduce the risks caused by toxic and harmful substances, and continue to take sincere practical measures to meet the requirements of EU chemical regulations including REACH.

Beijing Qingchi Technology Co., Ltd. is a company specializing in perfluorosulfonate resin (PFSR) proton exchange membranes. We use PFSR as a solid electrolyte to make proton exchange membranes for hydrogen fuel cells and proton exchange membranes for hydrogen production through water electrolysis in order to achieve the function of blocking the mixing of hydrogen and oxygen and conducting protons. PFSR has a necessary use for this purpose and there is currently no other effective alternative, therefore we apply for an indefinite extension for this application.

With this application, PFSR mainly achieves the function of conducting protons and blocking the mixing of hydrogen and oxygen, and maintains chemical and physical stability over a long-term operation under acidic conditions. At present, it can not be replaced by the substitutes existing in the market or mentioned in the proposal completely.

Please refer to Attachment (1) for relevant data.

Beijing Qingchi Technology Co., Ltd

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Attachment 1

Performance of Perfluorinated Sulfonic Acid Resin Proton Exchange Membrane

Item	Data	Testing standards
Proton conductivity mS/cm	60	GB/T 20042.3-2022
Ion exchange equivalent g/meq	1009	GB/T 20042.3-2022
Tensile strength MPa	60	GB/T 20042.3-2022
Tensile modulus MPa	300	GB/T 20042.3-2022
Elongation at break %	100	GB/T 20042.3-2022
Hydrated proton capacity $\text{cm}^3/\text{m}^2 \cdot \text{d} \cdot \text{Pa}$	0.211 ^g	GB/T 20042.3-2022
Swelling ratio %	5	GB/T 20042.3-2022

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