Polybenzimidazole(PBI)

Description

PBI polymers and composite materials are independently developed,with excellent product consistency due to the sophisticated production equipment used. It can be used as proton exchange membrane in fuel cells,flow batteries,water electrolysis and hydrogen production and otherequipment.

Typical properties

一般规格Specification	技术指标Value
厚度Thickness(μm)	10-55/±1
克重Weight(g/m²)	20-75/±5
拉伸强度Tensile Strength(MPa)	100-200
氢燃料电池用PBI质子交换膜参数Application parameters of Hydrogen Fuel Cell	
推荐厚度Thickness(μm)	40-50
酸吸附量Acid Uptake(wt.%)	400-450
横向溶胀率Dimensional Swelling rate(%)	30±5
纵向溶胀率Thickness Swelling rate(%)	70±5
断裂伸长率Elongation at Break(9%)	≥100
质子电导率Proton Conductivity(160℃、RH=0%)(mS/cm)	≥80
渗氢电流密度Hydrogen Permeation Current Density(mA/cm²)	≤1
液流电池用PBI质子交换膜参数Application parameters of Flow Battery	
推荐厚度Thickness(μm)	15-25
拉伸强度Tensile Strength(MPa)	≥100
断裂伸长率Elongation at Break(%)	≥50
质子电导率Proton Conductivity(mS/cm)	≥50
库伦效率Coulombic Efficiency(%)	≥99
能量效率Energy Efficiency(%)	≥82

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