

PRIMER LIST



Primer	Primer Feature	Substrate	Customer System				Improvement/Purpose
			Electrode Type	Electrode Solvent System	Binder	Other	
057CH3	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is modified PAA with excellent ultra-high temperature stability The coating is hydrophilic and improves the adhesion strength of the electrode Optimum working temperature range: 80°C-120°C. 	Cu Foil	Gr/Si-C/SiO	Pure Water	SBR or PAA or PAA+SBR	High temperature requirement (80~120C) or rate≥20C	Improve the problem of powder falling from electrode Improve the peel strength of the electrode
057CH3Y	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is modified PAA with excellent ultra-high temperature stability The coating is not resistant to water and improves the adhesion strength of the electrode Optimum working temperature range: 80°C-120°C. 	Cu Foil	Gr/Si-C/SiO	NMP	PVDF	High temperature requirement (80~120C) or rate≥20C	
058CH3	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is modified PAA with good low temperature dynamics and good affinity with SBR The coating is hydrophilic and improves the adhesion strength of the electrode Good ability to absorb and retain liquid at low temperatures Optimum working temperature range: -40°C-60°C 	Cu Foil	Gr/Si-C/SiO	Pure Water	SBR or PAA+SBR (SBR>PAA)	/	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced internal resistance of cell Improved cell rate performance Improved cell cycling performance Improved low-temperature performance (-40~0°C)
			Gr/Si-C/SiO	Pure Water	PAA+SBR (PAA>SBR)	Substrate Foil Thickness <6um	
059CH3	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is modified PAA with better high temperature stability and good affinity with PAA The coating is hydrophilic and improves the adhesion strength of the electrode Good ability to absorb and retain liquid at low temperatures Optimum working temperature range: -20°C-80°C 	Cu Foil	Gr/Si-C/SiO	Pure Water	PAA+SBR (PAA>SBR)	Substrate Foil Thickness ≥6um	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced internal resistance of cell Improved cell rate performance Improved cell cycling performance Improved low-temperature performance (-20~0°C)
			Gr/Si-C/SiO	Pure Water	PAA	Substrate Foil Thickness ≥6um	
060CH3	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is mainly SBR with good high temperature stability and strong compatibility with SBR The coating is hydrophilic and improves the adhesion strength of the electrode Good ability to absorb and retain liquid at low temperatures Optimum working temperature range: -40°C-60°C 	Cu Foil	Gr/Si-C/SiO	Pure Water	SBR	/	Improve the problem of powder falling from electrode Better results in improving the peeling strength of the electrode Reduced internal resistance of cell Improved cell rate performance Improved cell cycling performance Improved low-temperature performance (-40~0°C)
062CH3Z	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is modified PAA with good affinity to PAA The coating is not resistant to water and improves the adhesion strength of the electrode Suitable for clay-like dry processes 	Cu Foil	Si-C/Si	Solvent Free	PAA	Clay-likedry	Suitable for clay-like dry processes. Improve the peel force of the electrode
063CH3	<ol style="list-style-type: none"> The conductive agent is mainly carbon black The binder is modified PAA with less side reaction with electrolyte The coating is not resistant to water and improves the adhesion strength of the electrode High coverage of the substrate at 1.2g/m²coating volume. 	Cu Foil	Gr/Si-C/SiO	NMP	PVDF	/	Improve the problem of powder falling from electrode Improve the peel force of the electrode Reduced internal resistance of cell Improved cell rate performance Improved cell cycling performance
			Lithium Metal	Solvent Free	/	lithium metal calendaring and laminating processes	Suitable for lithium metal calendaring and laminating processes Improved composite bond strength
			Gr/Si-C/SiO	NMP	PVDF	Sulfide solid state battery	Protects copper foil from sulfide electrolyte corrosion to improve cell cycling performance

065CA3R	1. The conductive agent is mainly carbon black 2. The coating has thermally viscosity (matching the hot pressing temperature of 100°C~160°C); 3. The single-sided thickness of the coating is in the range of 1.5~2.0um	Al foil	LFP or NCM	Solvent Free	PTFE or PTFE+PVDF or PVDF	1. Dry cathode process by spraying method 2. Cylindrical structure battery or solid state battery	Improved adhesion of dry electrode Reduced interfacial resistance of dry electrode; Reduced internal resistance of cell
065CA3RT	1. The conductive agent is mainly carbon black 2. The coating has thermally viscosity (matching the hot pressing temperature of 100°C~160°C); 3. The conductive agent has a higher BET value and provides more contact sites; 4. The single-sided thickness of the coating is in the range of 1.5~2.0um	Al foil	LFP or NCM	Solvent Free	PTFE or PTFE+PVDF or PVDF	1. Dry cathode process by spraying method 2. Cylindrical structure battery or pouch stacked structure or solid state battery	Improves the problem of backside sticking to the rollers during hot pressing after single-sided spraying.
065CASR	1. The conductive agent is mainly carbon black 2. The coating has thermally viscosity (matching the hot pressing temperature of 100°C~160°C); 3. The single-sided thickness of the coating is in the range of 1.5~2.0um		LFP or NCM	Solvent Free	PTFE or PTFE+PVDF or PVDF	1. Polymer protofibrillation dry cathode process 2. Cylindrical structure battery or solid state battery	Improved adhesion of dry electrode Reduced interfacial resistance of dry electrode Reduces the internal resistance of the cell
	1. The conductive agent is mainly carbon black 2. The coating has thermally viscosity (matching the hot pressing temperature of 100°C~160°C) 3. The conductive agent has higher BET value and provides more contact sites 4. The single-sided thickness of the coating is in the range of 1.5~2.0um	Al foil	Gr/Si-C/SiO	Solvent Free	PTFE or PTFE+PVDF or PVDF	1. Polymer protofibrillation dry cathode process 2. Cylindrical structure battery or solid state battery	
065CA5RT	1. The conductive agent is mainly carbon black 2. The coating has thermally viscosity (matching the hot pressing temperature of 100°C~160°C); 3. The conductive agent has a higher BET value and provides more contact sites 4. The single-sided thickness of the coating is in the range of 1.5~2.0um	Al foil	LFP or NCM	Solvent Free	PTFE or PTFE+PVDF or PVDF	1. Polymer protofibrillation dry cathode process 2. Cylindrical structure battery or solid state battery	Improved adhesion of dry electrode Reduced interfacial resistance of dry electrode Reduces the internal resistance of the cell
		Cu Foil	Gr/Si-C/SiO	Solvent Free	PTFE or PTFE+PVDF	1. Polymer protofibrillation dry cathode process 2. Cylindrical structure battery or solid state battery	
065GA4X	1. The conductive agent is mainly carbon black 2. The coating has thermally viscosity (matching the hot pressing temperature of 100°C~160°C); 3. The single-sided thickness of the coating is in the range of 1.5~4.0um	Al foil	LFP or NCM	Solvent Free	PTFE or PTFE+PVDF or PVDF	1. Polymer protofibrillation dry cathode process 2. Cylindrical structure battery or solid state battery	Improved adhesion of dry electrode Reduced interfacial resistance of dry electrode Reduces the internal resistance of the cell
		Etched foil	Activated carbon	Solvent Free	PTFE	1. Polymer protofibrillation dry cathode process 2. Supercapacitor cathode and anode	
066G3	1. The conductive agent is mainly graphite 2. High tightness of coating 3. Good water resistance (resistant to water wipe>30 times)	Al foil	LFP	Pure Water	PAA or other water-based adhesive	/	Improve the problem of powder falling from electrode Improve the peel strength of the electrode
			Sodium ion battery water-based cathode	Pure Water	Water-based adhesive	l	
			Hard carbon anode	Pure Water	SBR or other water-based adhesive	/	
			Activated carbon	Pure Water		Wet EDLC	
069C3X	1. The conductive agent is mainly carbon black 2. The binder is modified PAA with good high temperature stability 3. Good ability to absorb and retain liquid at low temperatures	Al foil	Double-sided area density<450g/m ²	NMP	PVDF	Regular design or instantaneous discharge rate≥20C or 48V start-stop battery	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance
			NCM/NCA Mixed ≤75%LMFP	NMP	PVDF	/	Optimize high and low temperature performance of cell
			lithium titanate	NMP	PVDF	Lithium titanate battery anode	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance
	1. The conductive agent is mainly carbon black 2. The binder is modified PAA with good high temperature stability		NCM or NCA	NMP	PVDF	Oxide solid state battery or polymer solid state battery	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance
	1. The conductive agent is mainly carbon black 2. The binder is modified PAA with good high temperature stability 3. Good ability to absorb and retain liquid at low temperatures		Cathode for sodium-ion batteries (non-NFPF)	NMP	PVDF	/	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance Optimize high and low temperature performance of cell

069C3R	<p>1. The conductive agent is mainly carbon black</p> <p>2. The binder is modified PAA with good high temperature stability</p> <p>3. Good ability to absorb and retain liquid at low temperatures</p> <p>4. Coated surfaces are rough to increase the bonding area.</p>	Cu Foil	Lithium Metal	Solvent free	/	lithium metal calendaring and laminating processes	Suitable for lithium metal calendaring and laminating processes Improved composite bond strength
069G3	<p>1. The conductive agent is mainly graphite</p> <p>2. The binder is modified PAA with better high temperature stability</p> <p>3. The color is lighter than 069C3X, adapted for customer device identification.</p>	Al foil	Double-sided area density<450g/m ²	NMP	PVDF	Regular design or instantaneous discharge rate ≥20C or 48V start-stop battery	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance Optimize high temperature performance of cell
			NCM or NCA	NMP	PVDF	Oxide solid state battery or polymer solid state battery	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance
			Cathode for sodium-ion batteries (non-NFPP)	NMP	PVDF	/	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance; Optimize high temperature performance of cell
073C3RT	<p>1. The conductive agent is mainly carbon black</p> <p>2. The binder is modified PAA with a soft coating to increase the adhesive area</p> <p>3. Coated surfaces are rough to increase the bonding area.</p> <p>4. The conductive agent has a higher BET value and provides more contact sites</p> <p>5. The coating bonds better to difficult-to-bond materials</p>	Al foil	Pure LMFP or NCM/NCA+ over75%LMFP	NMP	PVDF	/	Improve the problem of powder falling from electrode Better results in improving the peeling strength of the electrode Improved cell cycling performance
			Double-sided area density >450g/m ²	NMP	PVDF	/	
			NFPP	NMP	PVDF	/	
073G3R	<p>1. The conductive agent is mainly graphite</p> <p>2. The binder is modified PAA with a soft coating to increase the adhesive area</p> <p>3. Coated surfaces are rough to increase the bonding area.</p> <p>4. The coating bonds better to difficult-to-bond materials</p>	Al foil	Pure LMFP or NCM/NCA+ over75%LMFP	NMP	PVDF	Electrode material viscosity <8000cp	Improve the problem of powder falling from electrode Better results in improving the peeling strength of the electrode Improved cell cycling performance
			Double-sided area density >450g/m ²	NMP	PVDF	Electrode material viscosity <8000cp	
073G3RA	<p>1. The conductive agent is mainly carbon black</p> <p>2. The binder is modified PAA, with excellent resistance to ultra-high temperature</p> <p>3. Coated surfaces are rough to increase the bonding area</p> <p>4. The conductive agent has a higher BET value and provides more contact sites</p> <p>5. Good ability to absorb and retain liquid at low temperatures</p>	Al foil	NFPP	NMP	PVDF	Electrode material viscosity <8000cp	Improve the problem of powder falling from electrode Better results in improving the peeling strength of the electrode Improved cell cycling performance
074C3RT	<p>1. The conductive agent is mainly carbon black</p> <p>2. The binder is modified PAA, with excellent resistance to ultra-high temperature</p> <p>3. Coated surfaces are rough to increase the bonding area.</p> <p>4. The conductive agent has a higher BET value and provides more contact sites</p> <p>5. Good ability to absorb and retain liquid at low temperatures</p>	Al Foil	Double-sided area density <450g/m ²	NMP	PVDF	Suitable for continuous discharge rate ≥10C discharge conditions Suitable for continuous discharge rate ≥10C discharge conditions or Ultra-high-temperature working place (>100℃) or working temperature >80℃ or 48V start-stop battery	Improve the problem of powder falling from electrode Reduced interfacial resistance Improve the peel strength of the electrode Optimize high and low temperature performance of cell
			NCM or NCA	NMP	PVDF		
074G3	<p>1. The conductive agent is mainly graphite</p> <p>2. The binder is modified PAA, with excellent resistance to ultra-high temperature</p> <p>3. Excellent tightness of the coated surface</p> <p>4. The coating is resistant to water and alkali immersion.</p>	Al Foil	NCM or NCA	NMP	PVDF	Oxide solid positive or ultra-high temperature working place (200℃)	Improve the problem of powder falling from electrode Reduced interfacial resistance Requires a coating to protect the aluminum foil from alkali corrosion

074G3R	1. The conductive agent is mainly graphite 2. The binder is modified PAA, with excellent resistance to ultra-high temperature 3. Coated surfaces are rough.	Al foil	Double-sided area density <450g/m ²	NMP	PVDF	Suitable for continuous discharge rate ≥10C discharge conditions	Improve the problem of powder falling from electrode Reduced interfacial resistance Improve the peel strength of the electrode
			NCM or NCA	NMP	PVDF	Suitable for continuous discharge rate ≥10C discharge conditions or Ultra-high -temperature working place (>100℃) or cell working temperature>80℃ or 48V start-stop battery	
076G3	1. The conductive agent is mainly graphite 2. The binder is modified PAA 3. Extremely low coating volume (≤0.10g/m ²) 4. Good water resistance of coating 5. Cost=passivated foil/hydrophilic foil	Al foil	Hard carbon anode	Pure Water	SBR or other water-based adhesive	/	Improve the problem of powder falling from electrode Reduced interfacial resistance Improve the peel strength of the electrode Low-cost requirements
081B3	1. Improve the pass rate of nail penetration test, no explosion and fire during nail penetration 2. The binder is modified PAA 3. The single-sided thickness of the coating is in the range of 3.0~4.5um	Al foil	Large capacity design LFP or LMFP or LCO or NCM or NCA	NMP	PVDF	/	Requires >80% pass rate of nail penetration to improve safety performance of cell nail penetration
082G3	1. Improve the pass rate of overcharge test, no explosion or fire under 1.5 times overcharge voltage 2. The binder is modified PAA with PTC effect	Al foil	Large capacity design LFP or LMFP or LCO or NCM or NCA	NMP	PVDF	/	Requires pass rate of nail penetration to improve safety performance of cell nail penetration
083B3 Ceramic edge	1. Fillers are mainly inorganic insulating materials with good insulation properties and resistance >200MΩ 2. The binder is modified PAA 3. Good resistance to electrolyte 4. Gap between ceramic edge and carbon coated layers ≤1.0mm 5. Single-side coating thickness is in the range of 1.0~1.5μm	Al foil	/	/	/	/	Requires insulating ceramic edge coatings Reduce the power of laser die-cutting, no powder falling and no edge bursting during rolling Reduces cost by decreasing the scrap rate of the electrode production process.
085C3R	1. The conductive agent is mainly carbon black 2. The binder is modified PAA with good compatibility with non-polarity solvents 3. Coated surfaces are rough to increase the bonding area.	Al foil	LFP Double-sided area density <450g/m ²	Alkanes or toluene or other non-polarity solvents	SEBS or rubber or PIB or other weak polarity binders	/	Improved adhesion of dry electrode Reduced interfacial resistance of dry electrode Reduces the internal resistance of the cell
			NCM or NCA	Alkanes or toluene or other non-polarity solvents	SEBS or rubber or PIB or other weak polarity binders	Sulfide solid state cathode	
085G3R	1. The conductive agent is mainly graphite 2. The binder is modified PAA with good compatibility with non-polarity solvents 3. Coated surfaces are rough to increase the bonding area.	Al foil	LFP Double-sided area density <450g/m ²	Alkanes or toluene or other non-polarity solvents	SEBS or rubber or PIB or other weak polarity binders	/	Improve the problem of powder falling from electrode Improve the peel strength of the electrode Reduced interfacial resistance
			NCM or NCA	Alkanes or toluene or other non-polarity solvents	SEBS or rubber or PIB or other weak polarity binders	Sulfide solid state cathode	
086G3	1. The conductive agent is mainly graphite 2. The binder is modified PAA with less side reaction with electrolyte 3. High coverage of the substrate at 1.2g/m ² coating volume.	Cu foil	Gr/Si-C/SiO	NMP	PVDF	Sulfide solid state battery	Protects copper foil from sulfide electrolyte corrosion to improve cell cycling performance
087C3	1. The conductive agent is mainly carbon black 2. The binder is modified PAA with less side reaction with electrolyte 3. High coverage of the substrate at 1.0g/m ² coating volume.	Al foil	NCM or NCA or LFP or Sodium ion battery cathode	NMP	PVDF	TFSI in electrolyte	Protects copper foil from sulfide electrolyte corrosion to improve cell cycling performance Improved first time efficiency and consistency of the cell