

The Synthomer Group

DELIVERING <u>GROWTH</u> IN SPECIALITY CHEMICALS

A Growing Supplier of Speciality Polymers





Leading global supplier of water-based and differentiated polymers with revenues of £2.0bn



International footprint in Europe, North America & Asia; 30+ manufacturing sites, 5 Innovation Centres



A strong track record of organic growth and M&A



ca. 4,200 employees around the world



Headquartered in London (UK); founded in 1920, listed on London Stock Exchange in 1971



Our portfolio



Synthomer divisional structure	End-market focus	Product examples	
Coatings & Construction Solutions Aqueous (acrylic & vinylic based) dispersions 	 Speciality coatings Construction Fibre bonding Energy Speciality additives 	 Binders and other polymer additives Well cementing Drilling fluid control additives Battery anode binders 	
Adhesive Solutions • Tackifying resins • Aqueous dispersions • Lithene polybutadiene	TyresHygienePackagingTapes & labels	 Pressure sensitive, contact and hot melt adhesives Sealants, wet glues and other tackifying resins and additives Rosin gums for a range of end uses 	
Health & Protection • NB ¹ rubber latex • SB ² rubber latex • High solids SB rubber chemistry	Additives for glovesSpeciality paper coatings	 Raw material for medical and other latex gloves Binders for paper coating, carpet, foam 	
 Performance Materials • Chemical additives • Non-aqueous based chemistry 	 Polymer additives Inorganic additives Acrylate monomers³ 	 Inorganic (copper, iodine and tin-derived) additives (William Blythe) Heavy and light acrylate raw materials Polymer additives for rubber and plastic applications 	

Source: Company information

- 1) Nitrile Butadiene
- 2) Styrene Butadiene
- 3) Acrylate Monomers is its own sub-segment

Energy Solutions Portfolio





WELLBORE SOLUTIONS

Base chemistries providing wellbore stability in drilling fluids and cementing applications



BATTERY MATERIALS

Commercial SBR latexes for current generation anodes

PAA for emerging silicon next generation anodes



EXPLORATORY INNOVATION

Carbon Capture, Utilization and Storage

Energy Storage Battery materials beyond binders

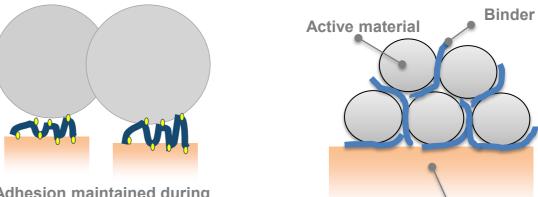
SBR – The Choice for Water-based Anodes



Copper

Why Styrene Butadiene Rubber?

- SBR gives excellent adhesion to copper and active material
- High slurry homogeneity, wettability and coating
- Efficiency of SBR binder enables high battery performance and capacity
- Mechanical properties suitable for graphite and silicon
- High total capacity and good capacity retention



Adhesion maintained during charging & discharging





LITEX[™] LB – High Performance Binders



LITEX LB - High-performance SBR binders available now

- → Formulation flexibility & ease of use
- → Outstanding electrode adhesion & electrolyte resistance
- → Excellent electrochemical properties for long-term capacity retention

Product Name	Chemistry	Tg (°C)	TSC (%)	рН	
LITEX LB 420	SBR	11	46	7.0	For low resistance, high adhesion
LITEX LB 422	SBR	-10	46	7.0	Optimized for cold temperature processing

Global Footprint

LITEX LB - SBR Binder Manufacturing

Battery Technical Support & Innovation



Headquarters London (UK)

Americas Beachwood, OH Akron (OH) Akron Tech (OH) Mogadore (OH) Calhoun (GA) Chester (SC) Roebuck (SC) Houston (TX) Columbus (MS)

Europe
London (UK)Kingsport (TN)
Jefferson (PA)Villejust (FR)
Filago (IT)Longview (TX)
Franklin (VA)Marl-CPM (DE)
Pischelsdorf (AT)
Asua (ES)Uruapan (MX)Asua (ES)Langelsheim (DE)
Le Havre (FR)

Ribecourt (FR)

 Marl Offices & Labs (DE) Sintra (PT) Stallingborough (UK) Worms (DE)
 Accrington (UK) Evergem (BE)

Harlow (UK) Sant' Albano (IT) Sokolov (CZ) Middelburg (NL) Middle East Africa

Dubai (UAE) Dammam (SA) Asia Kuala Lumpur (Malaysia) Shanghai (CN) Caojing (CN) Kluang (MY) Kulai (MY) Ningbo (CN) Pasir Gudang NBR (MY) Pasir Gudang MST (MY) Ho Chi Minh City (VN) Nanjing (CN)

Continuous Innovation to Keep Pace with an Electrifying World synthome

High Performance Li-ion Materials

High-capacity batteries

→ Binders for next gen Si-actives

Fast charging & high-power cells

→ Improved SBR electrical resistance

Better temperature performance

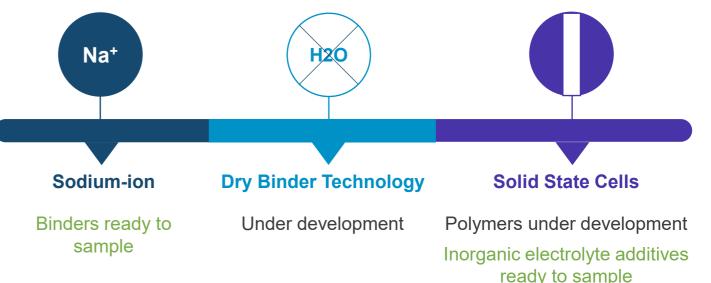
→ Binder performance at high & low temperatures

Water based cathode binder systems

→ Replacements for PVDF

Innovating to Support Disruptive Technology

→ Partnering to meet needs in alternative cells







synthomer

Contact us: anne.risse@synthomer.com