

hi-bond tapes Ltd.



www.hi-bondtapes.com

High Performance Foams
and Adhesive Tapes

**Technical Solutions
for EV & EHV
Power Supply
Production**



EV & EHV Battery Cell Production Tapes

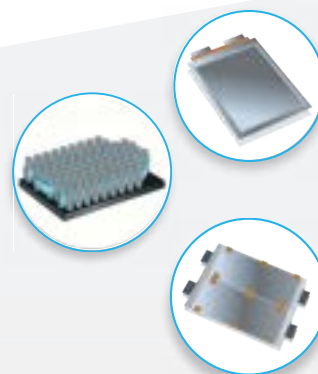
HB5369, HB5357DG, HB5357, HB5595DG, HB PET1215LF.

Polyimide & Polyester based tapes.

For taping Jelly Rolls, Insulation of Anode/Cathode Tabs.

Excellent Chemical resistance.

Good Compatibility with Cell chemistry.



Grade	Cell Production Tapes				
	Carrier	Adhesive	Colour	Thickness	Application
HB 5369	Polyimide (25 mic)	Acrylic (5 mic)	Amber	30 mic	Electrode Tab Insulation
HB 5357DG	Polyimide (50 mic)	Acrylic (7 mic)	Dark Green	57 mic	Electrolyte Sealing
HB 5357	Polyimide (50 mic)	Acrylic (7 mic)	Amber	57 mic	Electrolyte Sealing
HB 5595DG	Polyimide (15 mic)	Acrylic (7 mic)	Dark Green	22 mic	Jelly Roll & Electrolyte Sealing
HB PET1215LF	Polyester (12 mic)	Acrylic (3 mic)	Transparent	15 mic	Jelly Roll Sealing

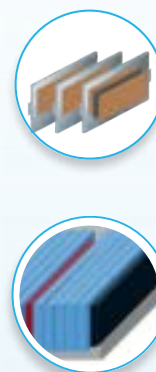
EV Battery Pack and Module Spacer Expansion Control Foams

Battery Pack and Module Spacer and Expansion Foams with or without adhesive.

Hi-Porseal™ nano cell Polyurethane foams with excellent CFD performance.

Hi-Porseal™ Silicone Foams with excellent CFD and high temperature resistance.

Hi-Porseal™ Thermal Conductive Silicone Pad material for reduction of Thermal Problems.



Grade	Hi-Porseal Compression and Cushioning Foams						
	Carrier	Thickness	Colour	Comp Force Deflection	Compression Set	Fire Rating	Application
HPS OFV	Polyurethane Foam	1.0-6.4mm	Black	0.55/1.3	< 5%	UL94 V0	Cell Spacer
HPS OFVT	Polyurethane Foam	1.0-6.4mm	Black	0.55/1.4	< 5%	UL94 V0	Cell Spacer
HPS SF1000	Silicone Foam	2.0, 2.5, 3.0mm	Black	20 kpa	< 5%	UL94 V0	Cell Spacer
HPS ST500	Silicone Foam	2.0, 2.5, 3.0mm	Black/Grey	170 kpa	< 5%	UL94 V0	Cell Spacer

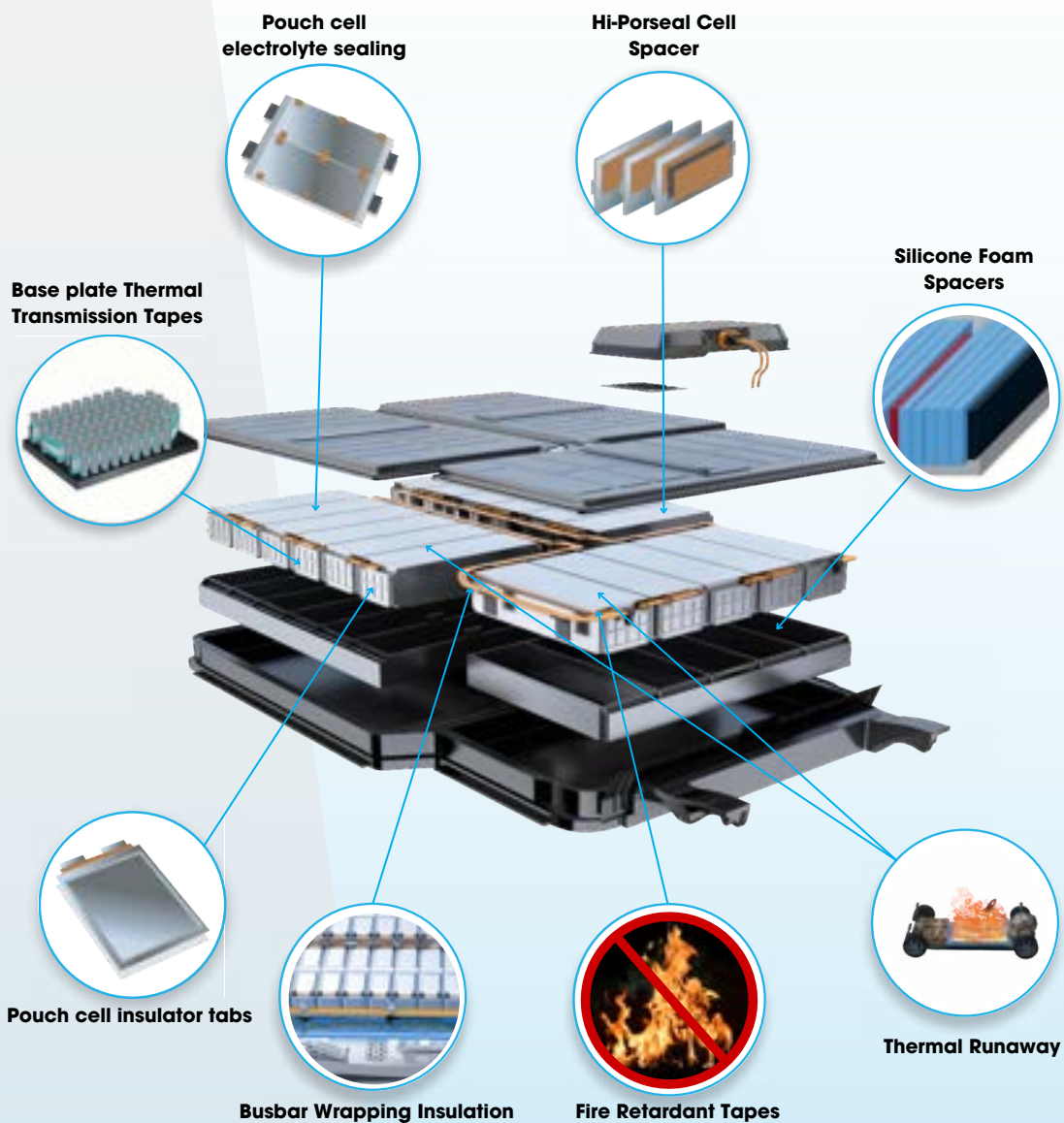
EV Battery Pack and Module

Electrical Insulation Materials

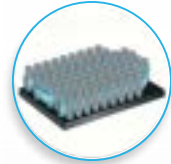
Flame Retardant Polymer Sheets with excellent Dielectric Strength.
Applications include Battery Pack BusBar insulation, lateral, and bottom pack insulation.
Can be supplied with adhesive on one or both sides.



Electrical Insulation & Management Prod							
Grade	Type	Thickness	Colour	Dielectric Breakdown	Dielectric Strength	Fire Rating	Application
HB FR700	Polycarbonate Sheet	250, 430 mic	Black	2.8kV/mm@1M Hz	59 kV/mm	UL94 V0	Dielectric Insulation, Busbar Insulation
HB FR125	Polyester Sheet	125 mic	White	2.8kV/mm@1M Hz	43 kV/mm	UL94 V0	Dielectric Insulation, Busbar Insulation



EV Battery Pack and Module Thermal Management and Thermal Runaway Materials



VST and TCW foamed acrylics for bonding applications where the prime role is control of thermal issues.

HB 3700 series for use where low adhesion and higher thermal management is required.

HPS 03ST and HPS 05ST silicone foams with high thermal conductivity.

HB TB Series for control of thermal runaway (UL94 V5A).

Thermal Management Bonding Tapes									
Grade	Carrier	Liner	Colour	Thickness	Peel Strength	Thermal Conductivity		Application	
TCW 050	Foamed Acrylic	Paper	White	50 mic	1150 gf/25mm	4.0 W/(m.K)		Thermal Management Bonding with excellent Z-axis performance and X/Y-axis thermal spread, Heat Sink Fixing, Hot Spot Reduction, etc.	
TCW 100	Foamed Acrylic	Paper	White	100 mic	1800 gf/25mm	2.5 W/(m.K)			
TCW 200	Foamed Acrylic	Paper	White	200 mic	2088 gf/25mm	1.24 W/(m.K)			
VST 7025W	Foamed Acrylic	Paper	White	0.25 mm	1200 gf/25mm	1.0 W/(m.K)			
VST 7064W	Foamed Acrylic	Paper	White	0.64 mm	2100 gf/25mm	1.0 W/(m.K)			
VST 7120W	Foamed Acrylic	Paper	White	1.2 mm	1600 gf/25mm	1.0 W/(m.K)			
Thermal Management Pads									
Grade	Carrier	Liner	Colour	Thickness	Dielectric Strength	Thermal Conductivity	Fire Rating	Application	
HB 3710	Foamed Acrylic	PET	White	1.0 mm	17 V/mm	1.0 W/(m.K)	UL94 V0	Thermal Spread Pad	
HB 3712	Foamed Acrylic	PET	White	1.2 mm	17 V/mm	1.0 W/(m.K)	UL94 V0	Thermal Spread Pad	
HB 3715	Foamed Acrylic	PET	White	1.5 mm	17 V/mm	2.3 W/(m.K)	UL94 V0	Thermal Spread Pad	
HB 3720	Foamed Acrylic	PET	White	2.0 mm	17 V/mm	1.0 W/(m.K)	UL94 V0	Thermal Spread Pad	
Grade	Carrier	Liner	Colour	Thickness	Dielectric Breakdown	Thermal Conductivity	Fire Rating	Temp Performance	Application
HPS 03ST	Thermal Silicone Foam	PET	Blue	1.0 - 12.0mm	6 kV/mm	3.0 W/mK	UL94 V0	-5 ~ 180°C	Self Tacky Thermal Pad
HPS 05ST	Thermal Silicone Foam	PET	Pink	1.0 - 5.0mm	6 kV/mm	5.0 W/mK	UL94 V0	-5 ~ 180°C	Self Tacky Thermal Pad
Thermal Runaway Protection Materials									
Grade	Carrier	Colour	Thickness	Dielectric Breakdown	Thermal Conductivity	Fire Rating	Incombustible Performance	Application	
HB TB110	Ceramic Coated Glass Fibre	White	110 mic	Min. 4kV	0.11 W/Mk	UL94 5VA	1300C/10minutes	Thermal Barrier Sheet	
HB TB140	Ceramic Coated Glass Fibre	White	140 mic	Min. 4kV	0.11 W/Mk	UL94 5VA	1300C/10minutes	Thermal Barrier Sheet	
HB TB180	Ceramic Coated Glass Fibre	White	190 mic	Min. 4kV	0.08 W/Mk	UL94 5VA	1300C/10minutes	Thermal Barrier Sheet	
HB TB400	Ceramic Coated Glass Fibre	Orange/White	400 mic	Min. 4kV	0.09 W/Mk	UL94 5VA	1300C/10minutes	EV-Busbar Thermal Barrier	

EV Battery Pack & Module fire retardant Bonding Tapes

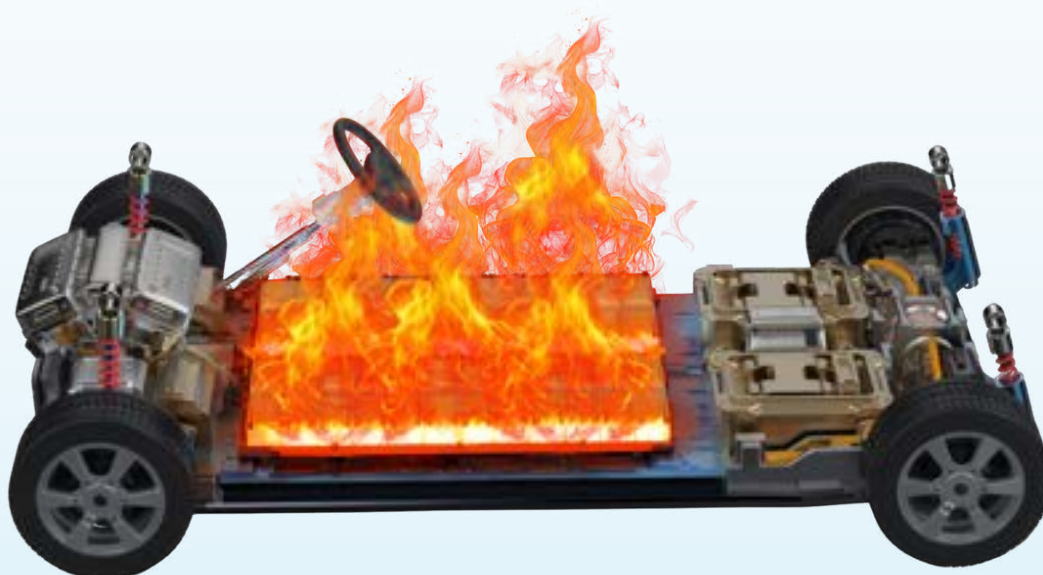
VST and HB Fire Retardant Tape for bonding application where the bond line must meet UL94 V0.

Available in a variety of thicknesses.

Excellent Adhesion to most polymer material commonly used in EV Battery modules and packs.



Grade	Fire Retardant Production Tapes					
	Carrier	Adhesive	Colour	Thickness	Fire Rating	Application
HB 030FR	Unsupported	Acrylic	Clear	30 mic	UL94 V0	Fire Retardant Bonding
HB 045FR	Double sided Polyester	Acrylic	White	45 mic	UL94 V0	Fire Retardant Bonding
HB 100FR	Double sided Polyester	Acrylic	White	100 mic	UL94 V0	Fire Retardant Bonding
VST6064WFR	Acrylic Foam	Acrylic	White	0.64 mm	UL94 V0	Fire Retardant Bonding
VST6110WFR	Acrylic Foam	Acrylic	White	1.1 mm	UL94 V0	Fire Retardant Bonding





1 Crucible Road, Phoenix Parkway, Corby, Northamptonshire, NN17 5TS, England

Telephone: +44 (0)1536 260022 Fax: +44 (0)1536 260044

Web: www.hi-bondtapes.com Email: sales@hi-bondtapes.co.uk

Company registration No. 3985595