

Key markets and applications.

Across battery pack and module designs for a variety of configurations, applications and operating conditions, 3M™ Scotch-Weld™ Structural Adhesives meet the most demanding bonding, filling and sealing requirements.

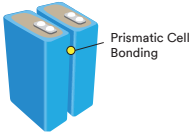
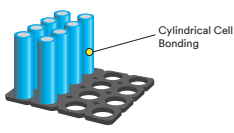
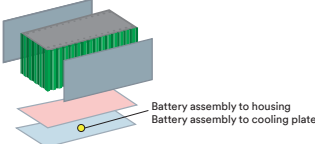
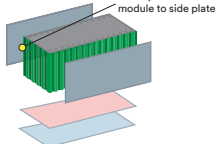
3M offers specialized understanding and experience for bonding of cells in cylindrical, prismatic and pouch configurations, and we meet requirements specific to your unique application and substrates to ensure reliable operation, durability and bond integrity.

Key Markets/Industries (Industrial/Electronics/Portable)

- General Industrial global battery/charger manufacturing
- Transportation: automotive, commercial vehicles, specialty vehicles (i.e. agricultural, forklifts, etc.)
- Telecommunications
- Energy Storage Systems
- Lawn, Garden & Tools
- Electronics: laptops, mobile, tablets

Type of applications

- Tension rod & pressure or end plate bonding
- Battery box bonding (from reinforcement bars to entire box)
- Crash box bonding
- Lid to battery box sealing
- Cell to frame bonding
- Battery tray bonding
- Bonding & encapsulating cells
- Potting cells
- Cell to cell bonding
- Bonding of thermal runaway materials
- Cell to cooling plate bonding

Application				
Products	3M™ Scotch-Weld™ Structural Adhesives Urethane: DP6310NS/ DP6330NS Flexible epoxy: DP125	3M™ Scotch-Weld™ Structural Adhesives Flexible epoxy: DP125	3M™ Scotch-Weld™ Structural Adhesives Toughened epoxy: DP420/DP460	3M™ Scotch-Weld™ Structural Adhesives Urethane: DP6310NS/ DP6330NS

Application	Possible 3M Solutions	Features & Benefits
Stiffener and tension rod bonding	DP420/DP420NS/DP420LH	<ul style="list-style-type: none"> • Excellent environmental, vibration and shock resistance • High peel & shear strength for lasting bond in high and low temp • Room temperature or accelerated heat cure • Non-sag & low halogen options • Bulk options for automated dispense
	DP8407NS	<ul style="list-style-type: none"> • Limited surface preparation • Strong bonds with broad temperature range • Fast cure time • Bulk options for automated dispense
Cell to Frame Bonding		
Prismatic cells	DP420/DP420NS/DP420LH	<ul style="list-style-type: none"> • Excellent environmental, vibration and shock resistance • High peel & shear strength for lasting bond in high and low temp • Room temperature or accelerated heat cure • Non-sag & low halogen options • Bulk options for automated dispense
	DP125	<ul style="list-style-type: none"> • High strength bonds under expansion, contraction and limited movement • Flexible bond for vibration and shock resistance • Excellent water, humidity and chemical resistance • Bulk options for automated dispense
Cylindrical cells	DP125	<ul style="list-style-type: none"> • High strength bonds under expansion, contraction and limited movement • Flexible bond for vibration and shock resistance • Excellent water, humidity and chemical resistance • Bulk options for automated dispense
Thermal Management Systems		
Battery tray bonding	DP420/DP420NS/DP420LH	<ul style="list-style-type: none"> • Excellent environmental, vibration and shock resistance • High peel & shear strength for lasting bond in high and low temp • Room temperature or accelerated heat cure • Non-sag & low halogen options • Bulk options for automated dispense
	DP8407NS	<ul style="list-style-type: none"> • Limited surface preparation • Strong bonds with broad temperature range • Fast cure time • Bulk options for automated dispense
	DP8010/DP8010NS	<ul style="list-style-type: none"> • Limited surface prep • Low surface energy bonding • Resists many chemicals, water, humidity and corrosion • Non-sag option • Bulk options for automated dispense

Battery Bonding Product Selection

Product Name	Product #	Color	Approx. Viscosity at 75° F	Approx. Mixed Work Life at 75°C	Size	UPC	Stock #
3M™ Scotch-Weld™ Multi-Material Composite Urethane	DP6310NS	Green	Non-sag paste	9 mins	48.5 mL 400 mL 5 gal - Part A 5 gal - Part B 50 gal - Part A 50 gal - Part B	00-076308-86407-1 00-076308-86398-2 00-076308-86782-9 00-076308-86748-5 00-076308-86783-6 00-076308-86749-2	7100109829 7100109830 7100143960 7100143915 7010415316 7010412199
3M™ Scotch-Weld™ Multi-Material Composite Urethane	DP6330NS	Green	Non-sag paste	30 mins	48.5 mL 400 mL 5 gal - Part A 5 gal - Part B 50 gal - Part A 50 gal - Part B	00-076308-86431-6 00-076308-86433-0 00-076308-86780-5 00-076308-86701-0 00-076308-86781-2 00-076308-86727-0	7100109828 7100109827 7100143961 7100143701 7010409611 7010366145
3M™ Scotch-Weld™ Toughened Epoxy	DP420	Black	30,000	20 mins	50 mL 200 mL 400 mL 1 gal kit 5 gal - Part A 5 gal - Part B 55 gal - Part A 55 gal - Part B	00-638060-08966-8 00-021200-41530-2 00-021200-41529-6 00-051115-25796-4 00-021200-41532-6 00-021200-41531-9 00-021200-41534-0 00-021200-41533-3	7100148731 7100007956 7100077148 7000046381 7000000834 7000000827 7010365967 7010309750
3M™ Scotch-Weld™ Toughened Epoxy	DP420NS	Black	180,000	20 mins	50 mL 200 mL 400 mL 5 gal - Part A 5 gal - Part B 55 gal - Part A 55 gal - Part B	00-638060-08987-3 00-021200-39286-3 00-021200-39287-0 00-021200-31309-7 00-021200-56587-8 00-048011-58133-0 00-048011-58132-3	7100148758 7100036943 7100010680 7000000857 7000000853 7100160352 7100160334
3M™ Scotch-Weld™ Toughened Epoxy	DP420	Off-White	30,000	20 mins	50 mL 200 mL 400 mL 5 gal - Part A 5 gal - Part B	00-638060-08978-1 00-021200-87832-9 00-021200-87833-6 00-021200-82239-1 00-021200-82238-4	7100148736 7100077136 7100002516 7100001144 7100001145
3M™ Scotch-Weld™ Toughened Epoxy	DP420LH	Off-White	30,000	20 mins	200 mL 400 mL	00-051111-07697-2 00-051111-07696-5	7010329550 7100075336
3M™ Scotch-Weld™ Flexible Epoxy	DP125	Gray	52,500	25 mins	48.5 mL 200 mL 400 mL 5 gal - Part A 5 gal - Part B	00-638060-08985-9 00-032300-87844-2 00-021200-87845-9 00-021200-87218-1 00-021200-87217-4	7100148735 7000121264 7100076727 7100084588 7100084538
3M™ Scotch-Weld™ Flexible Epoxy Clear	DP125	Trans-lucent	15,000	25 mins	48.5 mL 200 mL 400 mL	00-638060-08983-5 00-021200-87842-8 00-021200-87843-5	7100148734 7100025419 7000121262
3M™ Scotch-Weld™ Acrylic Adhesive	DP8407	Gray	20,000	7 mins	45 mL 490 mL 1 gal - Part A 1 gal - Part B 55 gal - Part A 55 gal - Part B	00-638060-14631-6 00-638060-14643-9 00-638060-14658-3 00-076308-86306-7 00-638061-14659-0 00-076308-98878-4	7100179482 7100179480 7100179264 7100105384 7100179442 7100104987
3M™ Scotch-Weld™ Acrylic Adhesive	DP8410NS	Green	70,000	10 mins	45 mL 490 mL 1 gal - Part A 5 gal - Part A 5 gal - Part B 55 gal - Part B	00-051115-70994-4 00-051115-70995-1 00-051115-68981-9 00-051115-70997-5 00-051115-68980-2 00-051115-71101-5	7100024055 7100024045 7100102180 7100084532 7100101506 7100084535

Continued on next page