

3M™ Wind Adhesives and Accessories

A scientist in a white lab coat and safety glasses is working on a wind turbine component. The background shows a large white wind turbine against a blue sky and ocean. The scientist is holding a small white object, possibly a component or a tool, and is looking at it intently. The overall scene is bright and professional, emphasizing the scientific and technical nature of the work.

Enhancing
Productivity
at **Every
Turn**

www.3M.com/wind

3M

Reliable Bonding and Attachment

3M is a world leader in advanced adhesives, used by industries ranging from electronics and aerospace to woodworking and composites manufacturing. We offer thousands of structural and non-structural strength products in a wide range of formulations, cure times and dispensing systems.

For wind components manufacturing, 3M offers a line of innovative adhesive solutions – optimized to meet the unique needs of this dynamic industry for strength, durability, environmental resistance and efficiency.

3M™ Wind Blade Bonding Adhesive W1101

A tough, crack-resistant structural epoxy used for bonding composite wind blades. Enables faster throughput, resulting in more blades per mold.

W1101 is a two-part paste adhesive that combines outstanding shear and peel strength with excellent impact resistance and durability. It also provides faster cure speed, reduced exotherm and longer pot life than conventional epoxy wind blade adhesives, saving up to 6 hours in mold time per blade. Certified by Germanischer Lloyd (GL) as a duromeric adhesive.



Because of its high strength and durability, 3M™ Wind Blade Bonding Adhesive W1101 helps reduce labor costs for in-factory repairs. It also reduces turbine downtime by requiring fewer repairs on-site.

Product Number	Color	Chemistry	Elasticity	Shear Strength (MPa)	Viscosity	Pot Life (hr)	Size (L)
W1101	Gray	Epoxy	Rigid	26-39	Non-Sag	2	200

3M™ Wind Threadlockers

One-component anaerobic adhesives that cure and seal threaded assemblies in a wide range of applications to prevent loosening and leakage.

Product Number	Color	Strength	Viscosity (cP)	Set Time (min)	Size (mL)	Property
W1235	Blue	Medium	3,000	<20	50 250	Oil Tolerant
W1240	Red	High	10,000	<20	50 250	High Temperature Resistant
W1245	Red	High	1,200	<20	50 250	Oil Tolerant



3M™ Wind Threadlockers provide excellent vibration, corrosion, and shock resistance. Threadlocker W1235 produces a bond that can be removed with hand tools; Threadlockers W1240 and W1245 produce a permanent bond.



3M™ Wind Structural Adhesives

A family of two-part, room temperature-curing adhesives used for bonding composite wind blades, and for other general purpose applications.

Product Number	Color	Chemistry	Elasticity	Shear Strength (MPa)	Viscosity (cP)	Work Life	Set Time	Size* (mL)	Quantity/ Case
W1110	Gray	Epoxy	Flexible	15-18	55,000	20 min.	2.5 hr.	50 400	12 6
W1115	Off-White	Epoxy	Rigid	25-28	30,000	20 min.	2.5 hr.	37 400	12 6
W1120	Black	Epoxy	Rigid	15-22	Non-Sag	45 min.	4 hr.	37 400	12 6
W1125	Black	Epoxy	Rigid	17-25	600,000	1.5 hr.	8 hr.	37 400	12 6
W1210	Off-White	Acrylic	Rigid	18-21	Non-Sag	10 min.	20 min.	50 400	12 6
W1600	Gray	Urethane	Rigid	16	3,000	1 min.	4 min.	50 400	12 6
W1610	Clear	Urethane	Flexible	9-11	2,000	10 min.	2 hr.	50 400	12 6

* Also available in bulk packaging.



3M™ Wind Structural Adhesives offer solutions for a wide range of applications. The Duo-Pak cartridge provides a controlled flow and is easy to use.

3M™ Dry Layup Adhesive

3M™ Dry Layup Adhesive is a sprayable, synthetic elastomer based adhesive for bonding/holding glass fabrics and roving, other reinforcements and other materials (i.e. flow media) in place during the infusion process.

Product Number	Color	Size	Application Method
09091	Red	16 oz. Aerosol	Aerosol Can
09092	Red	5 Gallon	3M™ PPS™ Paint Preparation System with 3M Spray Gun
09093	Red	55 Gallon	3M™ PPS™ Paint Preparation System with 3M Spray Gun
09094	Red	30 lbs. Cylinder	3M™ Scotch-Weld™ Cylinder Adhesive Applicator



3M™ Dry Layup Adhesive is designed to reduce the amount of time required for dry layup of fiberglass. Ideal for robotic application. It also helps reduce wrinkles, which can be a major source of failures.

3M Renewable Energy Division: Unmatched Capabilities

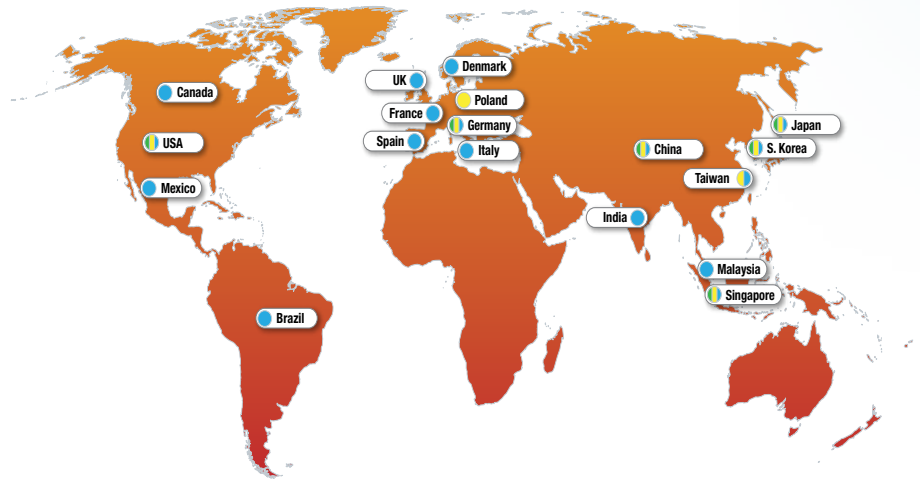
3M's commitment to the renewable energy industry includes a global organization of research and development, sales, marketing, manufacturing, and technical service – all dedicated to developing reliable materials that reduce costs and improve performance.

Expertise

Founded in 1902, 3M has extensive experience developing durable materials for outdoor applications in transportation, commercial graphics and optics. This includes world-class facilities for simulated and real-time weathering exposure and testing.

Innovation

At 3M, the innovation is never-ending. Whether the free-flow of ideas and solutions is occurring among our people, our technologies, our industries or the geographies where we operate, the human and technological connections within 3M enable infinite combinations and applications of expertise as ideas multiply and solutions expand.



● Laboratories ● Manufacturing ● Sales and Marketing

Laboratories	Manufacturing	Sales and Marketing
USA	USA	USA
Japan	Poland	Singapore
Germany	Germany	Canada
South Korea	South Korea	China
Singapore	Singapore	Mexico
China	Japan	South
	Taiwan	Germany
	China	Korea
		Denmark
		Japan
		Spain
		Taiwan
		UK
		France
		Italy
		Malaysia
		India
		Brazil

For more information on our wind energy product line, contact 3M Renewable Energy at 800-755-2654 or visit us at www.3M.com/wind.

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This Renewable Energy Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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