

3M Science.
Applied to Life.™



2019 Campaign
Materials x Markets

Composites

Industrial Adhesives and Tapes Division





3M solutions for increased productivity, efficiency and lightweighting.



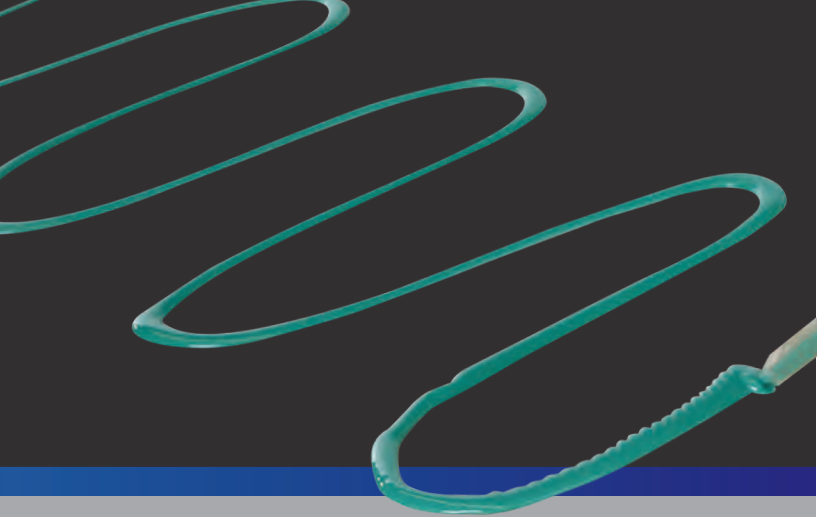
Composites

Market Overview

Composites, fiber reinforced plastics, are used in a wide variety of applications to reduce weight, provide improved environmental resistance, property enhancement, improved aesthetics, greater design options and increased stiffness to weight ratio.

Priority Segments Include:

- ▶ Composite Producers
- ▶ Aerospace
- ▶ Marine / Boat Building
- ▶ Bridges / Fiberglass
- ▶ Automotive Tiers
- ▶ Turbine Blade
- ▶ Sporting Goods
- ▶ Bus / Rail / Specialty Vehicles
- ▶ Truck / Trailer



Go To 3M Industrial Adhesives and Tapes for Your Application

Why choose a tape or adhesive?

Benefits of tape and adhesive bonding solutions



- ▶ Improves aesthetics
- ▶ Potential for light weighting
- ▶ Quick and easy application

Benefits of a tape solution



- ▶ Immediate handling strength
- ▶ Bonds and seals
- ▶ Ideal for dynamic loads

Benefits of an adhesive solution



- ▶ Replaces welds and mechanical fasteners
- ▶ High strength allows use of smaller bond areas
- ▶ Quick application time
- ▶ Initially repositionable



Dry Layup of Fibers
Pre-Resin Infusion Holding
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Composites

Dry Layup of Fibers: Pre-Resin Infusion Holding

Scotch® ATG Adhesive Transfer Tape 969



- ▶ A high tack adhesive transfer tape
- ▶ Holds well to glossy surfaces and most plastics
- ▶ Bonds well to smooth and moderately textured surfaces
- ▶ Conforms easily to curves and contours
- ▶ Leaves no mess, no residue and no odor
- ▶ Quick, controlled application with Scotch® ATG Adhesive Applicator 700
- ▶ 5 mil

UPC	Description/Size (W x Roll Length)	Case Qty
0-00-21200-67667-3	<input type="checkbox"/> Clear, 0.25 in x 18 yd	12
0-00-21200-31493-3	<input type="checkbox"/> Clear, 0.50 in x 18 yd	24
0-00-51131-06493-5	<input type="checkbox"/> Clear, 0.50 in x 18 yd	72
0-00-21200-05671-0	<input type="checkbox"/> Clear, 0.50 in x 18 yd	12
0-00-21200-05672-7	<input type="checkbox"/> Clear, 0.75 in x 18 yd	12
0-00-21200-87399-7	<input type="checkbox"/> Clear, 0.25 in x 36 yd	144
0-00-21200-15682-3	<input type="checkbox"/> Clear, 0.50 in x 36 yd	72
0-00-21200-15683-0	<input type="checkbox"/> Clear, 0.75 in x 36 yd	12
0-00-21200-24254-0	<input type="checkbox"/> Clear, 1.5 in x 36 yd	24
0-00-21200-19261-6	<input type="checkbox"/> Clear, 2 in x 36 yd	24

Dry Layup of Fibers

3M™ Hi-Tack Composite Spray Adhesive 71



- ▶ A high tack mist spray aerosol
- ▶ Securely bonds lightweight materials
- ▶ Compatible with epoxy, vinyl ester and polyester resins
- ▶ Available in visible green for spray pattern control — helps avoid over spraying

UPC	Description/Size	Case Qty
0-06-38060-14505-0	<input type="checkbox"/> Clear, large cylinder (30 lb)	1
0-06-38060-14506-7	<input checked="" type="checkbox"/> Green, large cylinder (30 lb)	
0-00-76308-14327-5	<input type="checkbox"/> Clear, 18.4 oz aerosol can	12
0-00-76308-14329-9	<input checked="" type="checkbox"/> Green, 18.4 oz aerosol can	



Autoclave

3M™ Polyester Tape 875/876



- ▶ Holds TC wires, vacuum bagging materials, and tooling
- ▶ Good initial tack and holding strength
- ▶ Clean removability from stainless steel, aluminum, and glass
- ▶ Heat resistant

UPC	Description/Size (W x Roll Length)	Case Qty
875 — 1.0 mil		
0-00-76308-14358-9	Green, 1 in x 72 yd	48
0-06-38060-14486-2	Green, 1 in x 72 yd	24
0-00-76308-86611-2	Green, 2 in x 72 yd	24
0-06-38060-14478-7	Green, 2 in x 72 yd	24
0-00-76308-14361-9	Green, 3 in x 72 yd	16
0-06-38060-14608-8	Green, 3 in x 72 yd	16
876 — 2.0 mil		
0-06-38060-14488-6	Green, 1 in x 72 yd	24
0-00-76308-14365-7	Green, 1 in x 72 yd	48
0-00-76308-86617-4	Green, 2 in x 72 yd	24
0-06-38060-14487-9	Green, 2 in x 72 yd	24
0-06-38060-14614-9	Green, 3 in x 72 yd	16

Composites

Masking

3M™ Performance Yellow Masking Tape 301+



- ▶ Removes cleanly in one piece with no adhesive residue
- ▶ Can withstand high surface temperatures for up to 30 minutes
- ▶ Sticks to most surfaces
- ▶ Colored backing improves visibility during the masking process
- ▶ 6.3 mil

UPC	Description/Size (W x Roll Length)	Case Qty
Bulk		
0-00-51115-64749-9	Yellow, 12 mm x 55 m	72
0-00-51115-64750-5	Yellow, 18 mm x 55 m	48
0-00-51115-64751-2	Yellow, 24 mm x 55 m	36
0-00-51115-64752-9	Yellow, 36 mm x 55 m	24
0-00-51115-64753-6	Yellow, 48 mm x 55 m	24
0-00-51115-64754-3	Yellow, 72 mm x 55 m	12
0-00-51115-64755-0	Yellow, 96 mm x 55 m	8
Individually Wrapped		
0-00-51115-64756-7	Yellow, 24 mm x 55 m	36
0-00-51115-64758-1	Yellow, 48 mm x 55 m	24
0-00-51115-64757-4	Yellow, 36 mm x 55 m	24

3M™ High Performance Green Masking Tape 401+



- ▶ Removes cleanly in one piece with no adhesive residue
- ▶ Can withstand high surface temperatures for up to 30 minutes
- ▶ Conforms to irregular surfaces and remains in place around corners and over contours
- ▶ Resists bleed-through to help create sharp lines
- ▶ Colored backing improves visibility during the masking process
- ▶ 6.7 mil

UPC	Description/Size (W x Roll Length)	Case Qty
Bulk		
0-00-51115-64759-4	Green, 12 mm x 55 m	48
0-00-51115-64760-4	Green, 18 mm x 55 m	48
0-00-51115-64761-1	Green, 24 mm x 55 m	24
0-00-51115-64762-8	Green, 36 mm x 55 m	16
0-00-51115-64763-5	Green, 48 mm x 55 m	12
0-00-51115-64764-2	Green, 72 mm x 55 m	8
0-00-51115-64765-9	Green, 96 mm x 55 m	8
Individually Wrapped		
0-00-51115-64769-7	Green, 48 mm x 55 m	12



Structural Bonding

3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesives DP6310NS



- ▶ Bonding plastics, metals and wood
- ▶ Can replace rivets and screws in attaching composites to other substrates
- ▶ Convenient hand-held applicator

UPC	Description/Size		Case Qty
0-00-76308-86407-1	■ Green, 48.5 mL Duo-Pak		12
0-00-76308-86398-2	■ Green, 400 mL Duo-Pak		6
0-00-76308-86782-9	■ Green, 5 gallon pail, Part A		5
0-00-76308-86748-5	■ Green, 5 gallon pail, Part B		
0-00-76308-86783-6	■ Green, 50 gallon drum, Part A		1
0-00-76308-86749-2	■ Green, 50 gallon drum, Part B		

Attachments

3M™ Adhesive Sealant 760 UV



- ▶ Forms permanent elastic bonds to allow joint movement
- ▶ Bonds to plastics, metals, fiberglass, and wood
- ▶ Gap filling capabilities
- ▶ Excellent UV resistance
- ▶ 10–30 minute skin time, paintable immediately
- ▶ Low VOC

UPC	Description/Size		Case Qty
0-00-48011-62817-2	■ Black, 290mL cartridge		12
0-00-48011-62819-6	■ Gray, 290mL cartridge		
0-00-48011-62815-8	□ White, 290mL cartridge		
0-00-48011-62818-9	■ Black, 600mL sausage pack		12
0-00-48011-62820-2	■ Gray, 600mL sausage pack		
0-00-48011-62816-5	□ White, 600mL sausage pack		
0-00-76308-86891-8	■ Black, 5 gallon drum		1

Composites are better suited to fabrication and assembly by adhesive bonding rather than traditional mechanical fixings, both from a weight savings and mechanical performance perspective.

Composites are used in new markets and applications everyday and it's a market open to innovation and new ways of doing things.

Be the leader to transform your industry, remake the world of making things.



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