

3M Packaging Solutions Guide October, 2016









## At 3M, we never forget our success was sealed by a roll of tape.

A single inventive way of solving a customer's problem more than 86 years ago led to a breakthrough that became known as "Scotch® Tape"; an invention that changed the world. Today, the curious minds at 3M continue to maintain the legacy of the original Scotch® Tape by meeting customer needs everyday and never compromising on performance.

Reliable performance proven over time has formed a bond of trust with Scotch® Tape. This is why it remains the number one brand for packaging, bundling, reinforcing solutions and more. At 3M, Scotch® Tape isn't "just tape." It's the crown jewel which built our reputation for uncompromising quality and innovation. We stake our reputation on delivering the very best, most reliable tapes every day so you can trust Scotch® Tape to protect your reputation, as well.

You can double down on dependability by combining Scotch® Box Sealing Tapes with 3M-Matic™ Case Sealers. With nearly a half-century of experience in building case sealing equipment, 3M delivers the "total package" in packaging systems.

In a world where so many unexpected events can impact your results, Scotch® Tapes and 3M packaging solutions have got you covered — with dependable, high quality products and systems to meet your ever-changing requirements.

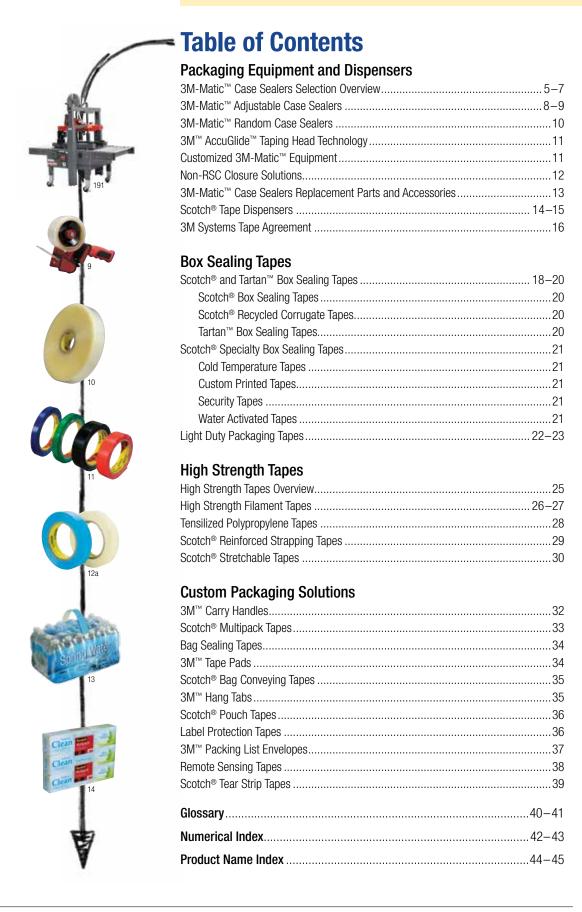
RIGHT RIGHT TAPES. SYSTEM. RIGHT PARTNER.

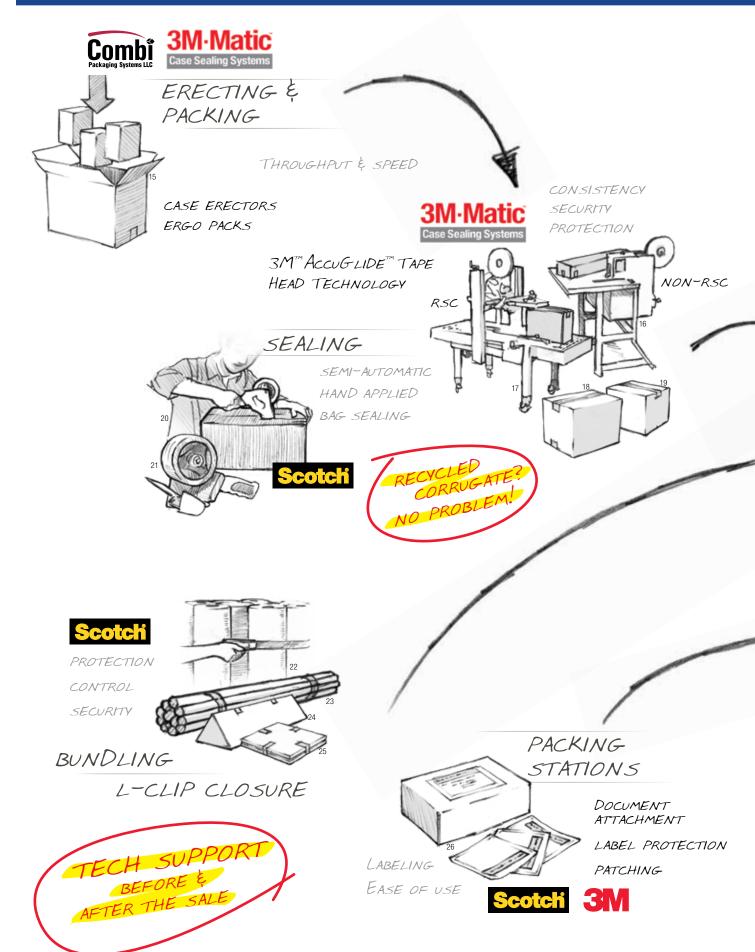






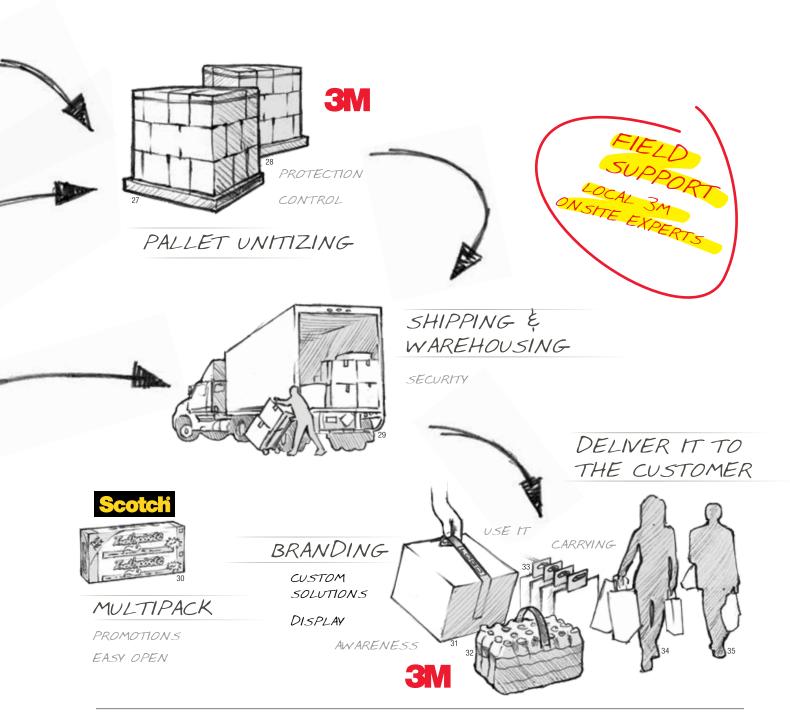
# **3M Packaging Solutions**





# The Total Package

Pack it. Close it. Move it. Sell it. Use it.







# 3M-Matic<sup>™</sup> Case Sealer

# Things to Consider When Selecting a Case Sealer



#### Do you pre-form your boxes? What style box do you use?

- RSC (regular slotted carton)
- FPF (five panel fold)
- Full overlap



#### What closure method do you use?

- RGT (reinforced gum tape)
- Pressure-sensitive box sealing tape
- Glue
- Staples

How many boxes do you seal per day?



Do you seal your boxes in uniform or random production runs?

## 3M-Matic<sup>™</sup> Case Sealers Selection Overview

#### For Sealing Uniform Size Boxes



#### Manually Adjustable, Semi-Automatic

#### **Affordable for Low Volume**



a20 Up to 30 cs/min Up to 65 lbs Bottom belt drive

a80\* Up to 30 cs/min Up to 65 lbs Side belt drives

#### **Engineered for High Volume**







200a\* Up to 40 cs/min Up to 85 lbs Bottom belt drive

800ab Narrow cases Bottom only taping Up to 40 cs/min Up to 85 lbs Side belt drives

800asb Small cases Up to 28 cs/min Up to 85 lbs

Side belt drives



7000a Pro Up to 40 cs/min Up to 85 lbs Top and bottom belt drives



8000a Up to 40 cs/min Up to 85 lbs Side belt drives

#### Manually Adjustable, **Semi-Automatic**



800af Up to 40 cs/min Up to 85 lbs Side belt drives

#### **Case Former**



# 700cf

3M-Matic<sup>™</sup> Case Former and Sealer 700cf is an adjustable top and bottom belt drive case sealer with an integrated case former to form, pack and seal up to 15 cs/min.

<sup>\*</sup>Available with 3 in. taping head



#### For Sealing Various Sized Boxes

#### Self Adjusting, Semi-Automatic



## 800r\*

Up to 20 cs/min Up to 85 lbs Side belt drives



## 800rks<sup>†</sup>

Up to 10 cs/min Up to 200 lbs Top and bottom side belt drives

#### **Self Adjusting Fully-Automatic Flap Folding**



## 800rf\*

Up to 10 cs/min Up to 65 lbs Side belt drives



## 7000r Pro

Up to 24 cs/min Up to 85 lbs Top and bottom belt drives

\*Available with 3 in. taping head †Comes standard with 3 in. taping head

#### Non-RSC Box



## **S867**

3M-Matic<sup>™</sup> L-Clip Applicator S867 is a semi-automatic unit that applies 4.5 in. L-Clips of Scotch® Filament Tapes and Scotch® Box Sealing Tapes at up to 50 clips/min.

#### 3M-Matic Helpline: 1-800-328-1390

When you have a question, simply call the toll-free helpline, open to take your calls Monday through Friday, 8:00am to 4:30pm Eastern Standard Time. Messages will be taken 24 hours a day for next working day response.

#### **Belt Drive Key**

2 = Bottom belt drives

7 = Top and bottom belt drives

8 = Side belt drives

#### **Box Type**

a = Adjustable, for batch runs

r = Random, for mixed runs

#### **Additional Capability**

b = Bottom only

f = Flap folding

ks = King size

sb = Small box

# 3M-Matic<sup>™</sup> Adjustable Case Sealers

# Productivity with Quick Height and Width Adjustments

With quick manual adjustment, these rugged units reliably and accurately seal runs of the same size cartons for a variety of markets: food and beverage, medical devices, pharmaceutical, electronics, retail, manufacturing and distribution centers.



3M-Matic™ Adjustable Case Sealer a20 is an adjustable bottom belt drive case sealer to dependably seal uniform cases at up to 30 per minute.



3M-Matic™ Case Sealer 200a is an adjustable bottom belt drive case sealer to dependably seal uniform cases at up to 40 per minute.



3M-Matic™ Adjustable Case Sealer 700a-s stainless steel has advanced features to seal uniform cases up to 30 per minute. Dual masts with dual lead screws for stability and uniform height adjustments. Adjustable top and bottom belt drive system for reliable conveyance of heavier or tall/light boxes. Compression rollers position each box for precise tape sealing. Stainless construction for corrosive environments.



3M-Matic™ Adjustable Case Sealer 7000a Pro is an adjustable top and bottom belt drive to dependably seal uniform cases at up to 40 cases per minute.

#### **Bottom Belt Drive Systems**

		Box Siz	Box Size Capacity (inches)							D.II D.i.			
	Drive	Minimu	m		Maximum			Power Requirements		Operating Rate	Belt-Drive Speed		
Machine	System	L	W	Н	L	W	Н	Electrical	Air	(cs/min)	ft/min (m/s)	Taping Head	Comments
a20	Bottom	6.0	6.5	4.25 [3.5]	N/L	21.5	21.5	115VAC 60Hz 2.8A 360W	No Air	Up to 30	78 (0,4)	2" 3M™ AccuGlide™ 2+	Entry Level
a20-s	Bottom	6.0	6.5	4.25 [3.5]	N/L	21.5	21.5	115VAC 60Hz 2.8A 360W	No Air	Up to 30	78 (0,4)	2" 3M™ AccuGlide™ 2+	Stainless Steel
200a	Bottom	6.0	6.5	4.5 [3.75]	N/L	21.5	24.5 [28.5]	115VAC 60Hz 1.9A 220W	No Air	Up to 40	100 (0,5)	2" 3M™ AccuGlide™ 3	Semi-Automatic Adjustable
200a3	Bottom	6.0	7.5	4.5 [3.75]	N/L	21.5	24.5 [28.5]	115VAC 60Hz 1.9A 220W	No Air	Up to 40	100 (0,5)	3" 3M™ AccuGlide™ 3	Semi-Automatic Adjustable

Standard size capabilities are listed above. If additional sizes can be met, they are indicated by [Taping Head] or [Machine Configuration]. Changing the taping head or machine configuration will allow for enhanced box height range indicated in the chart above. Please refer to the Instructions and Parts List or 3M representative for more detail.

#### **Top and Bottom Belt Drive Systems**

	Bo		Box Size Capacity (inches)							0	Dolt Drive		
	Drive	Minimum		Maximum		Power Requirements		Operating Rate	Belt-Drive Speed				
Machine	System	L	W	Н	L	w	Н	Electrical	Air	(cs/min) ft/min (m		Taping Head	Comments
700a-s	Top and Bottom	6.0	6.0	4.75	N/L	21.5	24.5	115VAC 60Hz 3.8A 440W	No Air	Up to 30	78 (0,4)	2" 3M™ AccuGlide™ 2+ Stainless Steel	For Corrosive Environment
7000a Pro	Top and Bottom	6.0	6.5	2.0	N/L	26.5	28.0	115VAC 60Hz 3.8A 440W	No Air	Up to 40	100 (0,5)	2" 3M™ AccuGlide™ 3	Extended size capabilities are
7000a3 Pro	Top and Bottom	6.0	6.5	2.0	N/L	26.5	28.0	115VAC 60Hz 3.8A 440W	No Air	Up to 40	100 (0,5)	3" 3M™ AccuGlide™ 3	possible, please contact 3M

Standard size capabilities are listed above. If additional sizes can be met, they are indicated by [Taping Head] or [Machine Configuration]. Changing the taping head or machine configuration will allow for enhanced box height range indicated in the chart above. Please refer to the Instructions and Parts List or 3M representative for more detail.

# 3M-Matic<sup>™</sup> Adjustable Case Sealers



3M-Matic™ Adjustable Case Sealer a80 is an adjustable side belt drive case sealer that dependably seals uniform size cases.



3M-Matic™ Side Belt Adjustable Case Sealer 8000a is an adjustable side belt drive case sealer. Seals up to 40 cases per minute, using tape widths from 36mm to 48mm, and also 72mm tape.



3M-Matic™ Case Sealer 800asb is an adjustable side belt drive case sealer. Seals up to 28 cases per minute, using tape width of 36mm.



3M-Matic™ Case Sealer 800af is an adjustable fully automatic case sealer.



3M-Matic™ T-table Attachment is a 6" x 44" t-table attachment for use with 3M-Matic™ Case Sealers a80 and a80-3.



3M-Matic™ Case Sealer 800ab is an adjustable side belt drive case sealer. Applies bottom seal only at rates up to 40 cases per minute, using tape widths from 36mm to 48mm, and also 72mm tape.

#### **Side Belt Drive Systems**

		Box Siz	e Capacit	y (inches)									
	Drive	Minimu	m		Maximu	m		Power Requirer	nents	Operating Rate	Belt-Drive Speed		
Machine	System	L	W	Н	L	W	Н	Electrical	Air	(cs/min)	ft/min (m/s)	Taping Head	Comments
a80	Side	6.0	4.75	4.5	N/L	21.5	21.5	115VAC 60Hz 3.8A 440W	No Air	Up to 30	78 (0,4)	2" 3M™ AccuGlide™ 2+	Fatanil and
a80-3	Side	6.0	5.75	4.5	N/L	21.5	21.5	115VAC 60Hz 3.8A 440W	No Air	Up to 30	78 (0,4)	3" 3M™ AccuGlide™ 2+	Entry Level
a80b	Side	6.0	4.75	3.5	N/L	21.5	N/L	115VAC 60Hz 3.8A 440W	No Air	Up to 30	78 (0,4)	2" 3M™ AccuGlide™ 2+	Entry Level Bottom
a80b-3	Side	6.0	5.75	3.5	N/L	21.5	N/L	115VAC 60Hz 3.8A 440W	No Air	Up to 30	78 (0,4)	3" 3M™ AccuGlide™ 2+	Taping Only
8000a	Side	6.0	4.5	3.75	N/L	21.5	27.25	115VAC 60Hz 3.8A 440W	No Air	Up to 40	100 (0,5)	2" 3M™ AccuGlide™ 3	Extended size capabilities are
8000a3	Side	6.0	5.5	4.25	N/L	21.5	28.25	115VAC 60Hz 3.8A 440W	No Air	Up to 40	100 (0,5)	3" 3M™ AccuGlide™ 3	possible, please contact 3M
800asb	Side	6.0	3.9	2.75	N/L	21.5	22.25	115VAC 60Hz 3.8A 440W	No Air	Up to 28	57 (0,3)	1.5" 3M™ AccuGlide™ II	Small Box
800ab	Side	6.0	5.5	3.5	N/L	21.5	N/L	115VAC 60Hz 3.8A 440W	No Air	Up to 40	100 (0,5)	2" 3M™ AccuGlide™ 3	Bottom Taping Only
800ab3	Side	6.0	5.5	3.5	N/L	21.5	N/L	115VAC 60Hz 3.8A 440W	No Air	Up to 40	100 (0,5)	3" 3M™ AccuGlide™ 3	Bottom Taping Only
800af	Side	6.0	4.75	4.5 [3.75]	30	21.5	24.5 [28.5]	115VAC 60Hz 3.8A 440W	2.5 SCFM @ 85 PSIG	Up to 40	100 (0,5)	2" 3M™ AccuGlide™ 3	Flap-Folding
800af3	Side	6.0	5.75	4.5 [3.75]	30	21.5	24.5 [28.5]	115VAC 60Hz 3.8A 440W	2.5 SCFM @ 85 PSIG	Up to 40	100 (0,5)	3" 3M™ AccuGlide™ 3	i iap-roiulliy
a80-t	Side	6.0	4.75	4.5	N/L	21.5	21.5	115VAC 60Hz 3.8A 440W	No Air	Up to 30	78 (0,4)	2" 3M™ AccuGlide™ 2+	Entry Level Pack Station

Standard size capabilities are listed above. If additional sizes can be met, they are indicated by [Taping Head] or [Machine Configuration]. Changing the taping head or machine configuration will allow for enhanced box height range indicated in the chart above. Please refer to the Instructions and Parts List or 3M representative for more detail.

### 3M-Matic<sup>™</sup> Random Case Sealers

#### Productivity with Automatic Height and Width Adjustments

Adjusting automatically, these rugged units reliably and accurately seal runs of random size cartons for a variety of markets: food and beverage, medical devices, pharmaceuticals, electronics, retail, manufacturing and distribution centers. Patented 3M™ AccuGlide™ 2+ and 3 Taping Heads securely apply tape with low impact to protect even lightweight cases.



3M-Matic™ Random Case Sealer 7000r Pro is a semi-automatic random case sealer that automatically adjusts for case height and width and is capable of sealing 24 cases per minute, using tape widths from 36mm to 48mm wide.



3M-Matic™ Case Sealer 800rks is a random king size case sealer that automatically adjusts for case height and width and is capable of sealing up to 10 cases per minute, using tape widths from 48mm to 72mm wide.





3M-Matic™ Case Sealer 800r is a semi-automatic random case sealer automatically adjusts for case height and width. Top and bottom seal at rates up to 20 cases per minute, using tape widths from 36mm to 48mm wide.



3M-Matic™ Case Sealer 800rf Type 40800 is a fully automatic random size case sealer that automatically adjusts for various case sizes and folds the top minor and major flaps up to 10 cases per minute. Using tape widths from 36mm to 48mm tape widths.

#### Top and Bottom Belt Drive Systems

		Box Siz	Box Size Capacity (inches)					0					
	Drive	Minim	um Maximum Power Requirements		Operating Rate	Belt-Drive Speed							
Machine	System	L	W	Н	L	W	Н	Electrical	Air	(cs/min)	ft/min (m/s)	Taping Head	Comments
7000r Pro	Top and Bottom	6.0	6.5	2.25	N/L	26.5	26.0	115VAC 60Hz 3.8A 440W	3.75 SCFM @ 85 PSIG	Up to 24	100 (0,5)	2" 3M™ AccuGlide™ 3	Extended size capabilities are
7000r3 Pro	Top and Bottom	6.0	6.5	2.25	N/L	26.5	26.0	115VAC 60Hz 3.8A 440W	3.75 SCFM @ 85 PSIG	Up to 24	100 (0,5)	3" 3M™ AccuGlide™ 3	possible, please contact 3M

Standard size capabilities are listed above. If additional sizes can be met, they are indicated by [Taping Head] or [Machine Configuration]. Changing the taping head or machine configuration will allow for enhanced box height range indicated in the chart above. Please refer to the Instructions and Parts List or 3M representative for more detail.

#### **Side Belt Drive Systems**

		Box Siz	Box Size Capacity (inches)										
	Drive	Minim	um		Maximum		Power Requirements	;	Operating Rate	Belt-Drive Speed			
Machine	System	L	W	Н	L	W	Н	Electrical	Air	(cs/min)	ft/min (m/s)	Taping Head	Comments
800r	Side	8.0	4.0	5.0	N/L	20.0	21.25 [25.25]	115VAC 60Hz 3.8A 440W	3.75 SCFM @ 85 PSIG	Up to 20	100 (0,5)	2" 3M™ AccuGlide™ 3	Semi-Automatic
800r3	Side	8.0	4.0	5.0	N/L	20.0	21.25 [25.25]	115VAC 60Hz 3.8A 440W	3.75 SCFM @ 85 PSIG	Up to 20	100 (0,5)	3" 3M™ AccuGlide™ 3	Random
800rks	Side	15.0	6.0	12.0	N/L	30.0	50.0	208/240VAC 3Ph 60Hz 6.6A 1500W	6.25 SCFM @ 85 PSIG	Up to 10	78 (0,4)	3" 3M™ AccuGlide™ 2+	Random King Size
800rf	Side	8.0	5.5	6.0	24.0	20.0	20.0	208/240VAC 3Ph 60Hz 5.5A 1300W	7.0 SCFM @ 75 PSIG	Up to 10	100 (0,5)	2" 3M™ AccuGlide™ 3	Fully Automotic
800rf3	Side	8.0	5.5	6.0	24.0	20.0	20.0	208/240VAC 3Ph 60Hz 5.5A 1300W	7.0 SCFM @ 75 PSIG	Up to 10	100 (0,5)	3" 3M™ AccuGlide™ 3	Fully-Automatic

Standard size capabilities are listed above. If additional sizes can be met, they are indicated by [Taping Head] or [Machine Configuration]. Changing the taping head or machine configuration will allow for enhanced box height range indicated in the chart above. Please refer to the Instructions and Parts List or 3M representative for more detail.

## 3M<sup>™</sup> AccuGlide<sup>™</sup> Taping Head Technology

#### 3M Taping Heads for Easy and Accurate Case Sealing

3M<sup>™</sup> AccuGlide<sup>™</sup> Taping Heads are patented with a curvilinear design that applies tape securely with low impact that helps protect even lightweight cartons and contents. Since the combination of box sealing tape and taping head determines carton closure performance, 3M is continually improving both to meet your requirements for productivity and reliability.



Raising the speed limit to 100 ft. per minute for easy, consistent and accurate case sealing.



Speeds up to 80 ft. per minute.



Stainless steel resists corrosion. Speeds up to 80 ft. per minute.



Designed for case sealers with narrow taping head cavity. Applies tape at up to 100 ft. per minute.



A low height box taping head that exerts minimum force on case and utilizes shorter tape legs.



Heads available to apply 48mm and 72mm wide tape at case speeds of up to 150 ft. per minute. Unique precision shaft and ball bushing slide ensure precise application.

## Customized 3M-Matic<sup>™</sup> Equipment

#### **Built Around Your Product Needs**

As a market leader in case sealing equipment, 3M realizes it's not one size fits all. We have a unique capability to take an existing 3M-Matic™ Case Sealer and customize it to securely seal your unique cartons. Some of our capabilities include width and height modifications, accommodating lighter or heavy weight boxes, and integrating unique tape set ups.



Side Taping



**Gap Flap Taping** 



Wide Roll Taping

### Non-RSC Closure Solutions

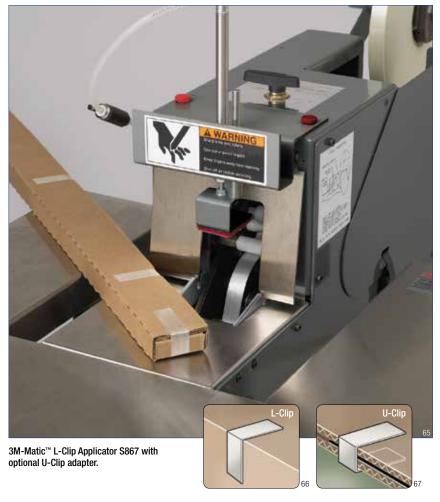
#### A Range of Solutions Can Increase Throughput While Decreasing Packaging Costs

- Solutions for start-ups
- Automation for large companies

# 3M-Matic™ L-Clip Applicator S867 and S867II

To save cost and time, apply pre-fed 4.5-inch L-Clips of Scotch® Filament or Reinforced Strapping Tapes at up to 50 clips per minute to five panel fold, full overlap, telescoping, tuck fold and other non-standard packages. Dual head applies two clips simultaneously as close as 8 inches apart.





# Great L-Clip Closure Solution for Non-RSC Box Styles



#### **Table Top L-Clip Applicators**

Table top E onprippheaters	
Features	Box Sealer S634
Tape Type(s)	Filament Tape Light Duty Packaging Tape
Can L-Clip These Package Types	Corrugate
Applied Tape Length	4 in.
Tape Width Options	9mm to 18mm
Cutting Method	Serrated blade cuts tape as box passes L-Clip application mechanism



## 3M-Matic<sup>™</sup> Case Sealers Replacement Parts and Accessories

# Genuine 3M Parts to Maintain Optimal Performance of 3M-Matic™ Case Sealers

Engineered for rugged duty with steel construction and epoxy coated surfaces, 3M-Matic™ Case Sealers may have parts that wear and need occasional replacement. 3M maintains stock of a full range of replacement parts from typical wear parts such as blades, belts, and springs to safety labels to bushings and cylinders. With over 5,000 stocked SKUs, replacement parts are available for prompt delivery to your location whether you are doing preventive maintenance or rebuilding a 3M-Matic™ Case Sealer after years of service.

Regular preventive maintenance of your equipment and quality parts are keys to performance of both newer case sealers or models that have been running for 30 years.



For tape dispenser replacement parts, call: 1-800-344-9883



With top and bottom sensors, the case sealer mounted programmable logic controller alerts the operator when tape is not applied to the box or not cut, or when tape supply is low on the roll.



An option for 3M-Matic™ Case Sealers. Indicates when tape is getting low.



For increased productivity, easily attached flap folder assists operator in folding the minor (front) and two major (side) flaps of RSCs before taping.



Ball bearing steel rollers in a steel frame bolts to the 3M-Matic™ Case Sealer to provide a smooth transition in existing conveyor lines. Provides pack area surface at infeed. Available also in stainless steel.



Holds RSCs on the optional infeed conveyor to free the operator's hands for case filling.



When packaging operations need to be reconfigured or moved, 3M-Matic™ Case Sealers roll to the job on these heavy duty casters. Toe-operated lever locks case sealer in place.

## Scotch® Tape Dispensers



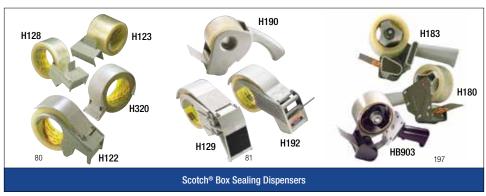
Portable, lightweight, easy to operate, hand-held dispenser with a retractable blade.



A hand-held, roll-on, pistol-grip dispenser designed to reduce the noise of tape unwind.



A hand-held, roll-on, pistol-grip dispenser.



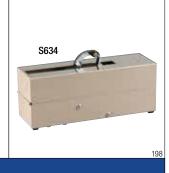
Hand-held dispensers for use with specially formulated Scotch® Box Sealing Tapes.



Applies tape in an adhesive-toadhesive flag seal.



Hand-held dispensers for use with Scotch® High Strength Filament Tapes.



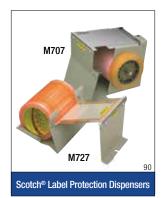
Semi-automatic dispensers for use with Scotch® High Strength Filament Tapes.



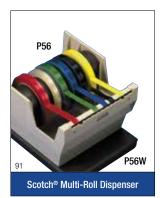
Manual heavy-duty dispensers for use with 3M™ Narrow Width Film Tapes.



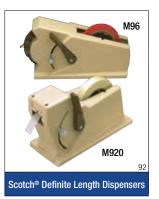
Dispenser has a heated water reservoir that speeds tape activation. Dispenses a pre-set length of water-activated tape at the push of a button.



Tabletop and portable dispensers designed specifically for 3M™ Label Protection and Pouch Tapes.



Dispenser for pull and tear of up to 6 inches total width of tapes. P56W offers weighted base.



Dispensers that deliver a uniform length of 3M™ Narrow Width Tape and Scotch® Filament Tapes every time quickly and easily.

# Scotch® Tape Dispensers

#### Easy Dispensing for Manufacturing, Office, Commercial and Retail Jobs

All Scotch® Manual Dispensers for box sealing tapes, filament tapes, film tapes, label protection tapes and pouch tapes are application-designed to meet the needs of the customer. Select from a variety of hand-held and heavy duty pull-and-tear table top dispensers.

Product	Product Description	Max Tape Width
Hand-Held Box	Sealing Tape Dispensers	
H100	Durable, lightweight plastic tape dispenser	50.8mm
H122	Durable plastic dispenser with built-in brake for precise seals	48mm
H123	Lightweight, compact metal tape dispenser	72mm
H128	Heavy-duty durable metal tape dispenser	48mm
H129	Quick and easy one hand method to apply, cut, and buff the tape closures	48mm
H150	Tape dispenser designed to reduce the noise of tape unwind during application	48mm
H153	Tape dispenser designed to reduce the noise of tape unwind during application	72mm
H180	Portable and easy to operate pistol grip dispenser	48mm
H183	Portable and easy to operate pistol grip dispenser	72mm
H190	Pistol grip dispenser features pull apart design	48mm
H192	Ergonomical tape dispenser with hand brake	48mm
H320	Ultra-light, economical, plastic tape dispenser	48mm
HB902	Economical, compact, and lightweight tape dispenser	48mm
HB903	Economical pistol grip tape dispenser	48mm
HR80	Portable, lightweight, easy to operate, dispenser with a retractable blade	48mm
HR83	Portable, lightweight, easy to operate, dispenser with a retractable blade	72mm
HR933	Tape dispenser with a retractable blade	72mm
	ment Tape Dispensers	7 2 111111
H10	Durable, lightweight plastic tape dispenser	24mm
H12	Portable, plastic dispenser features a hand brake to add tension to the tape roll	24mm
H121	Durable, metal dispenser allows operator to add tension for a tighter tape application	24mm
H128	Heavy-duty, metal dispenser commonly used to dispense tapes 8959 and 890	48mm
H130	Portable, plastic dispenser features a hand brake to add tension to the tape roll	18mm
H131	Quick and easy one hand method to apply, cut, and buff the tape closures	18mm
H133	Quick and easy one hand method to apply, cut, and buff the tape closures	18mm
HB901	Economical and portable tape dispenser	24mm
Table Top Disp	• • •	2711111
C22	Weighted dispenser for easy pull and cut tape dispensing	2 in.
C23	Weighted dispenser for easy pull and cut tape dispensing  Weighted dispenser for easy pull and cut tape dispensing	1 in.
C25	Weighted dispenser for easy pull and cut tape dispensing  Weighted dispenser for easy pull and cut tape dispensing	1 in.
HB900	Weighted dispenser for easy pull and cut tape dispensing  Weighted, slip-proof base for quick and easy one-handed operation	1 in.
M82	Definite length dispenser handles multiple rolls of tape commonly dispensed with filament and light duty tapes	96mm
M96	Definite length dispenser — dispenses tape in lengths of 3/4 in. to 5 in. per stroke	1 in.
M900	Durable, metal construction dispenses a uniform length of packaging tape from 1-1/2 in. to 16 in.	3 in.
M920 P52	Definite length dispenser — dispenses tape in lengths of 1/2 in. to 4 in. per stroke  Mainline tableton manual null and cut dispenser with multiple roll capacity.	1 in.
	Mainline tabletop manual pull and cut dispenser with multiple roll capacity  Mainline tabletop manual pull and cut dispenser with multiple roll capacity (comes with weighted base)	2 in.
P52W P56	Mainline tabletop manual pull and cut dispenser with multiple roll capacity (comes with weighted base)  Mainline tabletop manual pull and cut dispenser with multiple roll capacity.	2 in.
P56W	Mainline tabletop manual pull and cut dispenser with multiple roll capacity  Mainline tabletop manual pull and cut dispenser with multiple roll capacity (comes with weighted base)	6 in. 6 in.
P448		
S634	Metal dispenser that handles multiple rolls for easy dispensing  Somi automatically applied I. Clip of tape to a box using filement or light duty tapes.	8 in.
W100	Semi-automatically applies L-Clip of tape to a box using filament or light duty tapes  Manually dispenses pre-set length of water activated tapes	18mm 3 in.
W200	Manually dispenses pre-set length of water-activated tapes  Electronic dispenses — dispenses a pre-set length of water activated tape at the push of a button.	
	Electronic dispenser — dispenses a pre-set length of water-activated tape at the push of a button	3 in.
Specialty Tape	·	A in
M707	Heavy duty metal dispenser with auxiliary holder and cutter for 3/4-inch rolls of tape — commonly used with 821 and 823 tapes	4 in.
M727	Metal construction provides easy dispensing of pouch tapes 824, 827 and 829	5 in.
M797	Metal construction provides easy dispensing of pouch tape 827	6 in.
P400	Bag sealer — applies tape in an adhesive-to-adhesive — flag seal (includes bag trimmer)	3/4 in.
P410	Bag sealer — applies tape in an adhesive-to-adhesive flag seal	1/2 in.

## 3M Systems Tape Agreement

Buy a New 3M-Matic<sup>™</sup> Case Sealer and Scotch<sup>®</sup> Box Sealing Tape, Get a Cash Rebate or Accessories at No Additional Charge

The 3M Systems Tape Agreement allows you to:

- Save on the overall cost of your case sealing equipment
- Accelerate your packaging equipment Return on Investment
- Receive valuable parts and accessories at no charge
- Increase productivity and uptime
- Choose options that best fit your needs



# The More Tape You Purchase,

# The Greater Your Rebate and Savings!

#### Earn Cash Rebates\*

Earn cash rebates when you purchase a new 3M-Matic™ Case Sealer or Combi Packaging Systems equipment and purchase qualifying amounts of Scotch® Box Sealing Tape in accordance with the terms of the program.

#### Add Credits Towards a New Case Sealer\*\*

- Spare parts kits or parts vouchers
  - Earn free spare parts for your 3M-Matic™ Case Sealer when you purchase qualifying amounts of Scotch® Box Sealing Tape
- 3M<sup>™</sup> AccuGlide<sup>™</sup> Taping Heads
  - Earn free 3M<sup>™</sup> AccuGlide<sup>™</sup> Taping Heads for your
     3M-Matic<sup>™</sup> Case Sealer when you purchase qualifying amounts of Scotch<sup>®</sup> Box Sealing Tape
- 3M<sup>™</sup> Scotch<sup>™</sup> Manual Tape Dispenser
  - Earn a free dispenser when you purchase qualifying amounts of Scotch® Box Sealing Tape



# Sign a second Systems Tape Agreement, get another taping accessory at no additional charge<sup>†</sup>

3M tape dispensers available with qualifying purchases.

†Purchase requirements for initial Systems Tape Agreement must be satisfied in order to enter into a second agreement.

<sup>\*</sup>Rebate check is paid directly from 3M to customer after completing purchase of 3M-Matic™ Case Sealing Equipment and qualifying tape products.

Dollar amount of rebate is determined by equipment purchase price, plus tape model and pallet quantity ordered.

<sup>\*\*3</sup>M™ AccuGlide™ Taping Heads, Spare Parts Kits and Hand Dispensers are shipped up front to customer upon signing new tape purchase agreement.
Parts Vouchers can be used as needed during the agreement term.



## Scotch® and Tartan™ Box Sealing Tapes

#### **Technology That Really Delivers**

The full job of a package is containment, protection and communication.

**Delivering quality** with tapes that keep production lines moving with less interruption and ensure packages are sealed on arrival.

- 3M tapes can typically wrap the world 3.5 times before a defect is found
- Cost savings with fewer rejected shipments

**Delivering service and support** to help you select the right 3M product for your application.

On-site consultation with experienced
 3M engineers and sales specialists

**Delivering sustainability** by caring for the environment now and for the future.

- The manufacturing process of our 3M<sup>™</sup> Scotch® Box Sealing Tape is now virtually free of organic solvents. This equates to total avoided emissions of about 100MT CO2-e per year.
- Our Scotch® Recycled Corrugate Tape 3073 is made with an adhesive that contains over 10% bio-based content.
   All recycled corrugate tapes use recycled materials in the core to help with your sustainability goals.
- Visit www.3M.com/sustainability for more goals

**Delivering more.** In addition to box sealing tapes and equipment, 3M is your resource for bundling, reinforcing, labeling and other innovative packaging solutions.

#### **Technology That Solves Common Problems**



Easy unwind and high initial adhesion of Scotch® Box Sealing Tapes reduce tabbing downtime and rework.



Scotch® Box Sealing Tapes close securely without the holes, waste, appearance, sharp points and disposal of staples.



Initial adhesion and subsequent holding power of Scotch® Box Sealing Tapes resist popping for secure sealing throughout a supply chain.



Scotch® Box Sealing Tapes resist moisture encountered in storage and shipping through the supply chain.

#### **Tape Backing and Adhesive Selection Guide**

#### Step 1. Select Tape Backing

Scotch® and Tartan™ Box Sealing Tapes offer backing choices for specific performance properties:

#### Polyester

- Strongest backing
- Excellent abrasion resistance
- Moisture and chemical resistance
- Highest temperature resistance
- Transparency

#### Polypropylene

- Strong backing
- Good abrasion resistance
- Good conformability
- Most economical
- Transparency

#### Step 2. Select Tape Adhesive

With the Scotch® and Tartan™ Box Sealing Tapes you have two choices of pressure sensitive adhesive, each with a different combination of properties. Both seal cartons reliably without the mess, dwell time and equipment maintenance of hot melt adhesive.

#### Synthetic Rubber

- Excellent holding power
- Good initial adhesion above 40°F
- Meets ASTM D-5486 government specification

#### **Acrylic**

- Excellent initial adhesion over a broad temperature range
- Extremely long performance life
- UV and chemical resistance

#### **Box Sealing Tape Selector**

Additional packaging and shipping factors should be considered when selecting a box sealing tape. To determine a product for testing use this selector.

Circle the Point Value That Best Describes Your	Operations	Choose	an Effective	ClosureCho	ose 3M	
Point Value	POINTS	205				
1. How much does the filled box weigh?						70
a. 10 pounds 10		195				72mm
b. 20 pounds 20						
c. 30 pounds 25		180				
d. 40 pounds 30						
e. 50 pounds 35		405				
f. 70 pounds 45		165				
g. 80 pounds 50					72mm	
h. 100 pounds 60		150				
2. What is the carton burst/ECT test?						48mm
a. 150 SW/26 5		135				40111111
b. 175 SW/29 10						
c. 200 SW/32 15		120			48mm	
d. 250 SW/40 20		120				
e. 275 SW/44 25				72mm		
f. 350 SW/55 30		105				
g. 200 DW/42 35						
h. 275 DW/48 40		90				
i. 350 DW/51 45			72mm	40	42mm	
3. What is the value of contents?		75	/ 2111111	48mm		
a. <\$100						
b. \$100-\$1000 25		60				
c. >\$1000 40		00	48mm	42mm		36mm
4. What is the method of shipment?						
a. Palletized and unitized 5		45			36mm	
b. Palletized but not unitized 15			42mm	36mm		
c. Single 30		35				
		<b>↑</b>	36mm			
5. Type of carrier a. Company truck 5		TOTAL	Scotch® Box	Sealing Tape	Recommende	ed for Testing
b. Commercial transport/LTL 15		POINTS				
c. UPS/USPS/FEDEX 30			#3071	#3072	#3072	#3073
- 0. 01 0/001 0/1 EDEA		-	#371	#372	#373	#375
TOTAL POINTS			#311	#313		#355

The suggestion provided by this method must be confirmed by testing. These suggestions are based on experience, but there are factors which could alter the overall performance. For example:

- Cartons with center seam gap greater than 3/4" or over packed/ under packed cartons should be tested with 3" (72mm) wide tape
- Hard-to-stick surfaces and Recycled Corrugate Boxes, test Scotch® Recycled Corrugate Tape 3071, 3072 and 3073
- Box sealing tapes are available custom printed and with standard security messages
- Applications when tape is applied under 40°F, test Scotch® Box Sealing Tape 311, 313 and 3073
- If your package is unusual in size, shape, or load, try the 3M Technical Service Request (TSR) Program. Using the 3M TSR Program, a 3M representative will work with you on initial testing of a Scotch® Box Sealing Tape. One or two best options will be identified then a sample of your substrate is brought to the 3M Laboratories and tested for stress or other factors the product will encounter. The 3M test results will help you select the best box sealing tape for your manufacturing process and customer needs.

# Scotch® and Tartan™ Box Sealing Tapes

# Dependability for Food and Beverage, Electronics, e-Fulfillment, Pharmaceuticals and More

With choices of polyester or polypropylene backings and synthetic rubber or acrylic adhesives, you have dependability for a wide variety of box types, sizes, contents, handling situations and storage conditions.

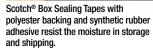
- Reliability even with the stresses of over packed or under packed boxes
- Quick, easy application by hand, manual dispensers or 3M-Matic<sup>™</sup> Case Sealers
- Choice of lengths, widths and colors to meet specific needs



It's not sealed until it's Scotch® Sealed.









Consistent quality of Scotch® Box Sealing Tapes means fewer interruptions on your packaging line.

Product	Tape Structure (Backing/Adhesive)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break (%)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Available Colors/Comments
ASTM Tes	st Method	D-3330	D-3759	D-3759	D-3652	D-3652	
Scotch® E	Box Sealing Tapes						
311	Polypropylene/	22 (24)	25 (438)	125	1.1 (.028)	2.05 (.052)	Yellow, Clear, Tan, Red, Blue, White
313	Acrylic	32 (35)	35 (613)	125	1.6 (.041)	2.55 (.065)	- Clear
315		38 (41.5)	23 (402)	200	2.3 (.058)	3.5 (.089)	- Cleal
351	- Dalvastor/	78 (85)	67 (1174)	130	2.0 (.051)	3.43 (.089)	Clear, Tan or Custom Printed
353	Polyester/ Synthetic Rubber	45 (49)	25 (437)	110	1.0 (.025)	1.9 (.048)	Clear, Tan
355	Oyntholic Hubbol	78 (85)	67 (1174)	130	2.0 (.051)	3.43 (.089)	Clear, Tan or Custom Printed
371		40 (44)	22 (385)	160	1.2 (.030)	1.8 (.046)	Clear, Tan, Blue, Green, Orange, Red, White, Yellow or Custom Printed
372	Polypropylene/	45 (49)	26 (455)	160	1.4 (.035)	2.2 (.056)	Clear, Tan or Custom Printed
373	Synthetic Rubber	50 (55)	30 (525)	160	1.6 (.041)	2.5 (.064)	Clear, Tan, Blue, Green, Orange, Red, White, Yellow or Custom Printed
375		55 (60)	35 (613)	160	2.0 (.051)	3.1 (.079)	Clear, Tan or Custom Printed
Tartan™ B	Box Sealing Tapes						
302	Polypropylene/	18 (20)	23 (402)	116	1.0 (.025)	1.6 (.040)	_
305	Acrylic	18 (20)	21 (368)	116	1.0 (.025)	1.8 (.046)	- Clear, Tan
369	Polypropylene/ Synthetic Rubber	30 (32)	19 (333)	160	1.0 (.025)	1.6 (.041)	Oloui, fuit

#### Strength that Sticks to Recycled Corrugate Cartons

With environmental standards changing rapidly and companies constantly seeking new ways to reduce costs and improve their environmental footprint, packaging materials are in a constant state of flux. Scotch® Recycled Corrugate Tapes are designed to help you stay on top of the changes.

- They're tackier than conventional box sealing tapes
- Made with a proprietary adhesive designed specifically for recycled corrugate cartons

Product	Tape Structure (Backing/Adhesive)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break (%)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Available Colors/Comments
ASTM Tes	st Method	D-3330	D-3759	D-3759	D-3652	D-3652	
Scotch® F	Recycled Corrugate Tapes						
3071	Polypropylene/ Synthetic Rubber	45 (49)	22 (385)	160	1.2 (.030)	2.1 (.053)	For use on recycled corrugate cartons, Custom Printed
311+	Polypropylene/Acrylic	38 (42)	25 (438)	125	1.1 (.028)	2.05 (.052)	Clear
3072	- Polypropylene/	65 (71)	22 (385)	160	1.2 (.030)	2.3 (.058)	For use on recycled corrugate cartons, Custom Printed
3073	Synthetic Rubber	46 (50)	30 (525)	160	1.6 (.041)	2.6 (.066)	For use on recycled corrugate cartons, Custom Printed, 10% bio-based content

# Scotch® Specialty Box Sealing Tapes

#### Dependability for Cold Storage, Gapped Flap Cartons and More

Starting with the same dependability and durability of Scotch® Box Sealing Tapes, specialty tapes add specialized form and/or functional properties for specific applications across all markets.



For box packing, sealing and storage below 40°F, Scotch® Box Sealing Tapes 3073 and 3723 seal with a rubber adhesive modified for reliability in the cold.



Scotch® Box Sealing Tape 3779 alerts receivers to unauthorized opening with a red "Check Seal Before Accepting."

Product	Tape Structure (Backing/Adhesive)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break (%)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Available Colors/Comments
ASTM Tes	t Method	D-3330	D-3759	D-3759	D-3652	D-3652	
Cold Temp	perature Tapes						
311+	Polypropylene/Acrylic	38 (42)	25 (438)	125	1.1 (.028)	2.05 (.052)	Clear
3723	Polypropylene/ Modified Synthetic Rubber	45 (49)	30 (525)	160	1.6 (.041)	3.0 (.076)	Clear
Custom Pi	rinted Tapes						
355CP	Polyester/Synthetic Rubber	78 (85)	67 (1174)	130	2.0 (.051)	3.42 (.089)	Clear, Tan
371CP		40 (44)	22 (385)	160	1.2 (.030)	1.8 (.046)	Clear, Tan, Blue, Green, Orange, Red, White, Yellow
372CP		45 (49)	26 (455)	160	1.4 (.035)	2.2 (.056)	Clear, Tan
373CP	Polypropylene/ Synthetic Rubber	50 (55)	30 (525)	160	1.6 (.041)	2.5 (.064)	Clear, Tan, Blue, Green, Orange, Red, White, Yellow
375CP	Synthetic nubbei	55 (60)	35 (613)	160	2.0 (.051)	3.1 (.079)	Clear, Tan
3071CP		45 (49)	22 (385)	160	1.2 (.030)	2.1 (.053)	For use on recycled corrugate cartons
3073CP		46 (50)	30 (525)	160	1.6 (.041)	2.6 (.066)	10% bio-based and for use on recycled corrugate cartons
Security T	apes						
3199	Polypropylene/Acrylic	22 (24)	25 (438)	125	1.1 (.028)	2.05 (.052)	Clear with Red Type: CHECK SEAL BEFORE ACCEPTING
3732		50 (55)	30 (525)	160	1.6 (.041)	2.5 (.064)	Tan with Red Type: IF SEAL IS BROKEN CHECK CONTENTS BEFORE ACCEPTING
3771		40 (44)	22 (385)	160	1.2 (.030)	1.8 (.046)	White with Red Type: IF SEAL IS BROKEN CHECK CONTENTS BEFORE ACCEPTING
3772	Polypropylene/ Synthetic Rubber	40 (44)	22 (385)	160	1.2 (.030)	1.8 (.046)	White with Red Type: FRAGILE HANDLE WITH CARE
3775		40 (44)	22 (385)	160	1.2 (.030)	1.8 (.046)	White with Red Type: MIXED MERCHANDISE ENCLOSED
3779		40 (44)	22 (385)	160	1.2 (.030)	1.8 (.046)	Clear with Red Type: CHECK SEAL BEFORE ACCEPTING

Product	Tape Structure (Backing/Adhesive)	Basis Weight	Caliper (mils)	Tensile Strength (lbs. / in.)	Tear Strength (grams)	Available Colors/Comments
ASTM Tes	st Method	D-646	D-645	D-5803	D-1922	
3M™ Wate	er Activated Tapes					
6141		35	3.5	30	72	
6142	Paper backing/gummed modified cornstarch based adhesive	60	5.5	44	125	Kraft (Tan) or Custom Printed
6143	Thouned complaint based adhesive	90	7.5	58	200	
6144		23/23	4.9	45–50	N/A	Kraft (Tan) or Custom Printed
6145	Paper backing with filament reinforcement/gummed modified	23/23 (Kraft) 30/23 (White)	5.0 (Kraft) 7.3 (White)	52–57	N/A	Kraft (Tan), White or Custom Printed
6146	cornstarch based adhesive	30/23	6.5	60–65	N/A	Kraft (Tan) or Custom Printed
6147		23/23 (Kraft)	8.5	60–65	N/A	Kraft (Tan) or Custom Printed

## Light Duty Packaging Tapes

#### Versatility with Choices of Film Backings and Adhesives for Application Success

#### **Typical Light Duty Applications**

- Garment bundling
- Cookie tin seam sealing
- Plastic bag closure
- Attaching extended application tube to aerosol can
- Party tray closure
- Wrapped candy box closure
- Wrapper closure
- Document envelope closure
- Inner pack box closure

#### Variety of Surfaces

- Fabrics
- Molded plastics
- Metals
- · Clay-coated paperboard
- Corrugated
- Vinyl and films



Hold plastic tray lid with Scotch® Transparent Film Tape 605.

#### **Tapes for Apparel Tabbing and Holding**

- Scotch® Transparent Film Tape 600: UPVC backing with very high strength acrylic adhesive
- Scotch® Transparent Film Tape 640: UPVC backing with clean removal acrylic adhesive for a wider variety of fabric finishes and treatments; formulated for tabbing shirts and underwear

#### **Tapes for Other Light Duty Applications**

- Scotch® Transparent Film Tape 605: Polypropylene backing with very aggressive acrylic adhesive for cold temperature applications
- Scotch® Colored Film Tape 690: UPVC backing with natural rubber adhesive for sealing and color coding







# Light Duty Packaging Tapes

Product	Color	Backing Material	Backing Thickness mils (mm)	Total Thickness mils (mm)	Tensile Strength Ib/in (N/100 mm)	Adhesive Type	Adhesion to Steel oz/in (N/100 mm)	Elongation (%)	Typical Use	Comments
600	Clear	UPVC	1.5 (0.038)	2.3 (0.058)	28 (490)	Acrylic	40 (44)	45	L-Clip closure, attaching, tabbing and holding	Excellent handling, high clarity and long aging
605	Clear	Polypropylene	1.6 (0.041)	2.5 (0.064)	22 (385)	Acrylic	27 (30)	57	Cold temperature packaging	Cold temperature applications; Complies to FDA Regulations for indirect food contact
610	Clear	Cellophane	1.4 (0.036)	2.3 (0.058)	23 (402)	Natural Rubber	35 (38)	15	Splicing	High heat applications up to 300°F
640	Clear	UPVC	1.2 (0.030)	1.9 (0.048)	32 (560)	Acrylic	28 (30)	65	Tabbing and holding of apparel	Clean removal from wide variety of fabrics and substrates
660	Red	Cellophane	1.4 (0.036)	2.5 (0.064)	20 (350)	Natural Rubber	50 (55)	10	Splicing and easy detection	High heat applications up to 300°F; High adhesion
681	Clear	UPVC	1.5 (0.038)	2.4 (0.061)	25 (438)	Natural Rubber	30 (33)	35	Sealing	Resists moisture and chemicals; Heat shrinkable; Complies to FDA Regulations for indirect food contact
690	Black, Blue, Green, Red, Yellow, White	UPVC	1.5 (0.038)	2.3 (0.058)	35 (613)	Natural Rubber	30 (33)	45	Color coding	Resists moisture and chemicals; Heat shrinkable
856	Transparent	Polyester	1.0 (0.025)	2.0 (0.051)	25 (438)	Acrylic	20 (22)	90	Tough backing for good tear resistance	Tough backing for good tear resistance
5910	Clear	Polypropylene	1.2 (0.030)	2.0 (0.051)	18 (315)	Acrylic	16 (17)	90	Utility grade for light duty packaging applications	Conforms easily
Fingerpi	rint Lifting Tap	e								
8004	Clear	Polypropylene	1.4 (0.036)	2.0 (0.051)	18 (315)	Acrylic	16 (17)	90	Ultra clear tape; Handles easily	Lift and preserve physical evidence such as fingerprints

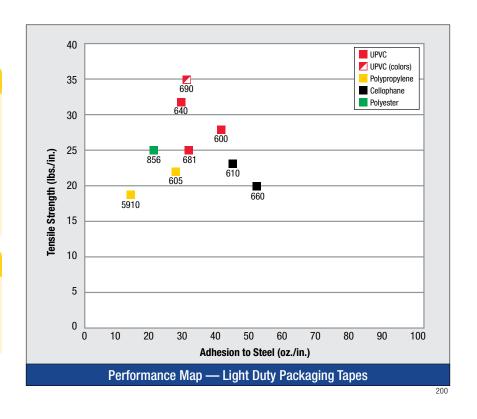
# Technologies Matched to the Applications

#### **Choice of Backings**

- **UPVC** for transparency plus moisture, chemical and UV resistance; non-staining and heat-shrinkable
- Polypropylene for transparency plus conformability and flexibility
- Cellophane for heat resistance
- Polyester for strength and abrasion resistance

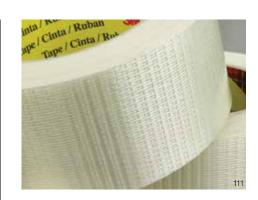
#### **Choice of Adhesives**

- Acrylic for long aging and UV resistance
- Rubber for high initial bond strength and adhesion to wide variety of materials including hard-to-bond plastics



# **High Strength Tapes**









## High Strength Tapes

#### For Packaging and Non-Packaging Applications

When you need a tape as strong as your reputation, you can count on 3M's consistently reliable, market-leading high strength tapes that are engineered to meet virtually any strapping, bundling or reinforcing challenge.

**SELECTION:** Our range of high strength tape constructions can help balance your product performance and budget needs.

**SAVE TIME AND MONEY:** Let 3M's application and technical experts, backed by a robust lab testing capability, help match the right tape to your performance requirements.

**PEACE OF MIND:** Scotch® and 3M brands are among the most innovative and trusted in the world. Our world-class tape manufacturing facilities churn out consistent and reliable products, roll after roll.

# Filament Reinforced Tape Easy Release Surface Film Backing Functional Adhesive Laminating Adhesive Reinforcing Yarn





114

#### **Streamlined Selection for Application Success**





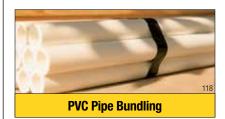
Bundling for Shipping and Handling



Product	Description	Tensile Strength*
8934	Glass yarn reinforced	100 lbs./in.
860	Tensilized polypropylene	110 lbs./in.
862	Reinforced strapping tape for strength AND high tape clarity	120 lbs./in.

# BUNDLING Up to 270 lbs./in.







Product	Description	Tensile Strength*
897	Glass yarn reinforced	170 lbs./in.
893	Glass yarn reinforced	300 lbs./in.
880	Polyester yarn reinforced	270 lbs./in.

# CLOSING Up to 600 lbs./in.





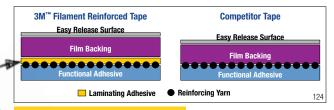


Product	Description	Tensile Strength*
898	Glass yarn reinforced, first choice for L- or U-Clip closure of non- RSC boxes	380 lbs./in.
890MSR	Glass yarn reinforced, modified synthetic rubber adhesive for oily surfaces	600 lbs./in.
8899HP	Tensilized polypropylene, clean removal	170 lbs./in.

<sup>\*</sup>ASTM Test Method D-3759

## High Strength Filament Tapes

# The World's Go-To Source for Filament Tapes Since 1946



**3M's laminating adhesive layer** provides an extra measure of protection against tape delamination to help ensure tape strength and performance throughout the application. With 3M, you get more consistency, reliability and confidence.

#### **Technologies Matched to the Applications**

#### **Choice of Adhesives**

- SR (Synthetic Rubber): Versatile, good adhesion to many surfaces
- MSR (Modified Synthetic Rubber): Designed for adhesion to oily surfaces
- RCT: Designed for adhesion to recycled corrugate and other hard-to-stick-to-surfaces

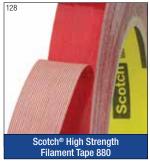
#### **Choice of Backings**

- Polypropylene: Good abrasion, moisture and scuff resistance; excellent conformability
- Polyester: Tough, strong backing; handles and dispenses easily









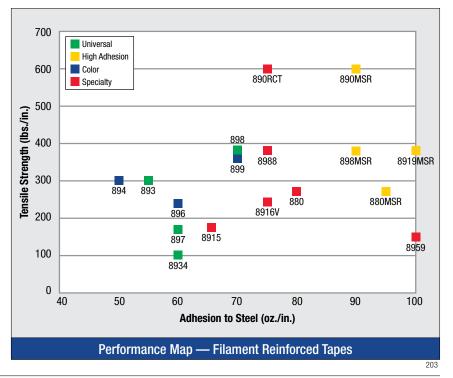


#### Bi-Directional Filament

- Superior cut and puncture resistance
- Extra box or package security against pilferage
- Highest adhesion in our high strength tape offering

#### **Choice of Filament Types**

- Fiberglass: Higher tensile strength for security and stretch resistance for stability
- Polyester: Higher elongation for better shock absorption and impact resistant



# High Strength Filament Tapes

	Tensile Strength	Backing		Total Thickness	Adhesive	Adhesion Strength oz/in	Elongation	Backing	
Product ASTM Test	lb/in (N/100 mm)	Material	Reinforcement	mils (mm)	Туре	(N/100 mm)	(%)	Color	Typical Use and Comments
Method	D-3759			D-3652		D-3330			
Universal	Filament								
898	380 (6655)	Polypropylene	Fiberglass	6.6 (0.168)	Synthetic Rubber (SR)	70 (77)	5	Clear	L-Clip box closure, General bundling and reinforcing; Very high strength, Versatile, Good adhesion to many substrates
893	300 (5254)	Polypropylene	Fiberglass	6.0 (0.152)	Synthetic Rubber (SR)	55 (60)	4.5	Clear	Box closing, palletizing, strapping, bundling and reinforcing; High strength
897	170 (2977)	Polypropylene	Fiberglass	6.0 (0.152)	Synthetic Rubber (SR)	60 (65)	3	Clear	Box closing, palletizing, strapping, bundling and reinforcing; Medium strength
8934	100 (1751)	Polypropylene	Fiberglass	4.0 (0.102)	Synthetic Rubber (SR)	60 (65)	3	Clear	Box closing, palletizing, strapping, bundling and reinforcing; Utility
Colored Fi	lament								
899	360 (6305)	Polypropylene	Fiberglass	6.6 (0.168)	Synthetic Rubber (SR)	70 (77)	5	Red	General bundling and reinforcing; Red color for increased visible and detection
894	300 (5254)	Polypropylene	Fiberglass	6.0 (0.152)	Synthetic Rubber (SR)	50 (55)	4.5	Black	Pipe bundling and other outdoor applications; High UV resistance
896	240 (4203)	Polypropylene	Fiberglass	5.4 (0.137)	Synthetic Rubber (SR)	60 (66)	3	White	Heavy box closure, general bundling and reinforcing; White boxes, Color coding
High Adhe	sion Filament								
890MSR	600 (10500)	Polyester	Fiberglass	8.0 (0.203)	Modified Synthetic Rubber (MSR)	80 (88)	3	Clear/ Black	Metal coil closure; Good adhesion to oily surfaces
898MSR	380 (6655)	Polyester	Fiberglass	6.0 (0.152)	Modified Synthetic Rubber (MSR)	90 (99)	3	Clear	Metal coil closure; Good adhesion to oily surfaces
8919MSR	380 (6655)	Polyester	Fiberglass	7.0 (0.180)	Modified Synthetic Rubber (MSR)	100 (109)	3	Clear	Metal coil closure; Good adhesion to oily surfaces, Thicker backing for improved handling
880MSR	270 (4728)	Polyester	Polyester	7.7 (0.196)	Modified Synthetic Rubber (MSR)	95 (100)	19	Clear	Metal coil closure; Good adhesion to oily surfaces, High cut resistance
Specialty I	Filament								
890RCT	600 (10500)	Polyester	Fiberglass	8.0 (0.203)	Synthetic Rubber (RCT)	75 (82)	3	Clear	Basiloid, Heavy appliance lifting; Good adhesion to recycled corrugate
8988	380 (6655)	Polypropylene	Fiberglass	6.9 (0.175)	Synthetic Rubber (RCT)	75 (82)	3	Clear	L-Clip box closure; Good adhesion to recycled corrugate
880	270 (4728)	Polypropylene	Polyester	7.7 (0.196)	Synthetic Rubber (SR)	80 (88)	19	Clear/ Red	Pipe and conduit, bundling and color coding; Excellent shock resistance
8959	150 (2627)	Polypropylene	Bi-Directional Fiberglass	5.7 (0.145)	Synthetic Rubber (SR)	100 (109)	6	Clear	Heavy box closure, Splicing, Metal parts bundling; Bi-directional filament for excellent cut and puncture resistance; High adhesion
8916V	210 (3678)	Polypropylene	Fiberglass	6.8 (0.172)	Synthetic Rubber (SR)	75 (82)	3	Clear/ Blue	Appliance, Secure and stabilize parts; Clean removal, Thicker backing
8915	170 (2977)	Polypropylene	Fiberglass	6.0 (0.150)	Synthetic Rubber (SR)	65 (71)	3	Clear	Appliance, Secure and stabilize parts; Clean removal

# Tensilized Polypropylene Tapes

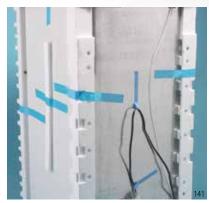
#### Clean Removal

- MOPP (monoaxially-oriented polypropylene) tape construction
- High strength tapes that hold firm, remove cleanly with no adhesive residue
- Great adhesion to vinyl and other plastics, glass, painted and unpainted metals, or powder coated
- Holds shelving, racks, doors, panels, cords, other parts in place, from plant to install





Bundle plastic, metal, stainless steel, glass, powdercoat or other coated electronic, appliance or automotive parts during assembly and transportation.



Hold packaging materials, spacers, corner boards, power cords and other hard-to-manage parts firmly in place



Appliance racks, shelves, drawers and doors can be secured, from plant to install, then removed cleanly with no adhesive residue.

Product	Tensile Strength lb/in (N/100 mm)	Backing Material	Reinforcement	Total Thickness mils (mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Elongation (%)	Color	Typical Use and Comments
ASTM Test Method	D-3759			D-3652		D-3330			
8899HP	170 (2977)	Polypropylene	None	4.8 (0.12)	Synthetic Rubber	55 (60)	30	Blue/ lvory/ White	Secure and stabilize parts, clean removal and high/low temperature performance
8898	160 (2802)	Polypropylene	None	4.6 (0.12)	Synthetic Rubber	75 (82)	32	Blue/ lvory	Appliance, Secure and stabilize parts; Clean removal, High adhesion
860	110 (1926)	Polypropylene	None	2.8 (.071)	Synthetic Rubber	45 (49)	33	Black	General bundling and strapping; Utility grade for pallet unitizing

28

# Scotch® Reinforced Strapping Tapes

# The CLEAREST High-Strength Tape Available



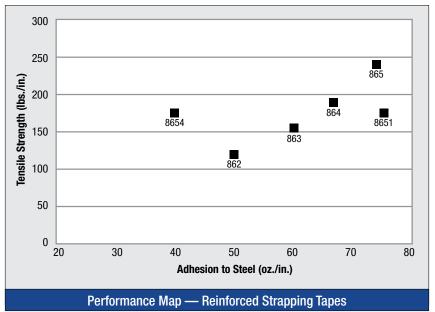
#### Why 3M?

- **Strong:** Polypropylene backing extruded to create monofilament "ribs"
- **Secure:** Resists nicking, cutting, tearing or puncturing during handling
- Clear: No filaments to obstruct graphics









Product	Clarity to Showcase Marketing Content	Barcode Scan-able	Resists Nicks	Resists Abrasion	Does it Scratch?
Reinforced Strapping Tape	Yes	Yes	Yes	Yes	No
Reinforced Gummed Paper Tape	No	No	Yes	Somewhat	No
Staples	Somewhat	No	n/a	n/a	Yes
Filament Tape	Somewhat	No	Yes	Yes	No
Tensilized Polypropylene Tape	No	No	No	Yes	No

Product	Tensile Strength lb/in (N/100 mm)	Backing Material	Reinforcement	Total Thickness mils (mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Elongation (%)	Color	Typical Use and Comments
ASTM Test Method	D-3759			D-3652		D-3330			
865	240 (4200)	Polypropylene	Polypropylene	6.4 (0.163)	Synthetic Rubber	74 (80)	30	Clear	Palletizing; L-Clip box closure; High clarity for use on highly graphic boxes; Bar code readable
864	190 (3325)	Polypropylene	Polypropylene	5.6 (0.142)	Synthetic Rubber	67 (73)	30	Clear	Palletizing; L-Clip box closure; High clarity for use on highly graphic boxes; Bar code readable
8651	175 (3064)	Polypropylene	Polypropylene	5.6 (0.142)	Synthetic Rubber	75 (82)	30	Clear	Palletizing; L-Clip box closure; High clarity for use on highly graphic boxes; Bar code readable
8654	175 (3064)	Polypropylene	Polypropylene	5.6 (0.142)	Synthetic Rubber	40 (44)	30	Clear	Cold temperature applications 35–50°F (2–13°C)
863	155 (2713)	Polypropylene	Polypropylene	5.0 (0.127)	Synthetic Rubber	60 (65)	30	Clear	Palletizing; L-Clip box closure; High clarity for use on highly graphic boxes; Bar code readable
862	120 (2100)	Polypropylene	Polypropylene	4.6 (0.117)	Synthetic Rubber	50 (54)	30	Clear/ Black	Pipe Bundling; Black for UV resistance

## Scotch® Stretchable Tapes

# Tape That Gets Stronger As It's S-T-R-E-T-C-H-E-D

- Adhesive "de-tackifies" when stretched: holds in place but won't damage carton graphics, shipping instructions or other pallet information when removed
- 650% stretch factor: 55-meter roll yields 357 meters of tape
- Creates ventilated load for shipment of time- and temperature-sensitive goods
- More stability less waste





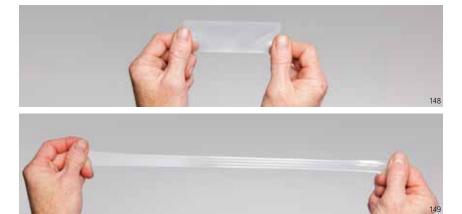
High yield! One 55-meter roll can unitize 60 or more A- or B-style pallets for intra-plant movement.



"X"-pattern can contain loads for shipment anywhere.



Less waste! Compare the 3M™ Stretchable Tape waste "ball" on the left versus the size of typical stretch film waste on the right.





Hand-held dispenser with tensioning/stretching brake for use with Scotch® Stretchable Tapes.

Product	Tensile Strength lb/in (N/100 mm)	Backing Material	Total Thickness mils (mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Elongation (%)	Color	Comments
ASTM Test Method	D-3759		D-3652		D-3330			
8886	28 (490)	Polyethylene	6.6 (0.168)	Synthetic Rubber	65 (71)	720	Clear	Load containment
8884	20 (350)	Polyethylene	5.0 (0.127)	Synthetic Rubber	70 (77)	710	Clear	Palletizing for intra-plant movement; Load containment; For hand application using Scotch® Stretchable Tape Dispenser H38



# 3M<sup>™</sup> Carry Handles — Applied at Retail Checkout

#### **Convenience For Your Customer**

- Quickly and easily transform bulky purchases into travel-friendly packages
- Custom print! Put your BRAND in consumer's hands
- Custom size to meet your store profile
- Great alternative to large retail shipping bag. Save a bag...offer a handle





Standard	Size
	Overall Handle Length: 23"
Handle Width: 1-3/8"	
1-3/8	Non-Adhesive Handle: 11"
1	Tape Leg: 6" Tape Leg: 6"

Product	Weight Holding Capacity (lbs)	Tape Material	Total Thickness mils (mm)	Tensile Strength Ib/in (N/100 mm)	Adhesive Type	Adhesion oz/in (N/100 mm)	Pads per Case	Handles per Case	Handle (width x length)	Tape Leg Length
3M™ Carry	Handles — Pad	lded for Individua	l Application				25 Handle	es per Pad		
8310	10	Polypropylene	3.1 (0.079)	35 (613)	Synthetic Rubber	55 (60)	110	2750	1" x 17"	3"
8315	15	Polypropylene	3.2 (0.081)	35 (613)	Synthetic Rubber	55 (60)	80	2000	1-3/8" x 23"	6"
8320	20	Polyester	3.5 (0.089)	67 (1174)	Synthetic Rubber	78 (85)	110	2750	1" x 17"	3"
8330	30	Polyester	3.5 (0.089)	67 (1174)	Synthetic Rubber	78 (85)	80	2000	1-3/8" x 23"	6"
8340	40	Reinforced Strapping Tape	5.6 (0.142)	190 (3325)	Synthetic Rubber	67 (73)	80	2000	1-3/8" x 23"	6"
8350	50	Filament Tape	7.7 (0.196)	270 (4728)	Synthetic Rubber	80 (88)	80	2000	1-3/8" x 23"	6"

# 3M<sup>™</sup> Carry Handles — Pre-Applied By Manufacturer

#### Give Your Products a Lift

- Differentiate your on-shelf appeal customers will associate convenience with your brand
- Customers will select and pick up your brand
- Printed handles communicate drive brand awareness, augment or replace other package information
- Convenience: Promo packs and up-sized SKUs can be easily carried from store to car or bus to home or office
- Ask your 3M Packaging Specialist for details on automated application equipment





Product	Holding Capacity (lbs)	Tape Material	Adhesive Type	Adhesion oz/in (N/100 mm)	Strength lb/in (N/100 mm)	Total Thickness mils (mm)	Roll Type	Roll (W x L)	Core Dia.		
3M™ Carry Handles — Long-Length Rolls for In-Line Automated Application											
8347	20	Polypropylene	Synthetic Rubber	50 (55)	103 (1800)	2.56 (0.065)	Level- wound	1" x 5470 yd	6"		
8346HP	20	Polyester	Synthetic Rubber	52 (57.0)	67 (1174)	3.4 (0.086)	Level- wound	25mm x 3000m	6"		

## Scotch® Multipack Tapes

#### Economical and Sustainable Alternative to Shrink Films, Banding, Boxes and Bags

- Effective, low-cost way to bundle consumer products into multipacks and value packs
- Significant reduction in consumer waste
- Clear, strong tape holds firmly and removes cleanly without damaging the primary package graphics
- Custom-print tape option delivers your branding and promotional messaging, multipack barcoding





#### **Environmental Impact**

See the comparison between the Scotch® Multipack Tape 694 and the shrink wrapped grouping: 5,000,000 kits of three 400mL packages per year.



Represents 304,000 water bottles.

Average of 20g/500mL bottle. For illustrative purposes only.

# Learn more about the cost saving Multipack Solution online. You'll find a packaging video, a cost-savings calculator, and both tape and equipment details at 3M.com/Multipack

Product	Color	Backing Material	Backing Thickness mils (mm)	Total Thickness mils (mm)	Tensile Strength lb/in (N/100 mm)	Adhesive Type	Adhesion to Steel oz/in (N/100 mm)	_	Comments
694 694CP	- Clear	Polypropylene	1.6 (0.040)	1.9 (0.049)	23 (409)	Acrylic	4.78 (5.23)	77	Clean removal tape designed for multi-unit primary packaging; Apply manually or with automated equipment; 649CP is a custom printed version
699	Clear	Polypropylene	1.6 (0.041)	2.6 (0.066)	30 (525)	Acrylic	46 (50)	160	Designed for bundling multi-unit primary packaging; Combine with 3M™ Carry
699CP									Handles for bundling pouches; Apply manually or with automated equipment; 699CP is a custom printed version

## **Bag Sealing Tapes**

# Stronger, Faster, Clearer Closure for Eye-Popping Woven Polypropylene Bags

Featuring tough, transparent tapes that instantly seal a wide range of bag types and materials. Scotch® Bag Sealing Solutions can accelerate your entire end-of-line operation, while improving the visual impact of your packaging.

- Cut downtime and potentially **double** your throughput over traditional bag closing systems
- Improve bag appearance and enhance shelf appeal with woven polypropylene bags
- Eliminate the hassles of traditional mechanical stitchers and the messy glue pots that come with adhesive closure systems
- Give customers an easy-open alternative
- Reduce bag leakage and improve quality control





Product	Color	Backing Material	Backing Thickness mils (mm)	Total Thickness mils (mm)	Tensile Strength lb/in (N/100 mm)	Adhesive Type	Adhesion to Steel oz/in (N/100 mm)	Elongation (%)	Comments	
8469 8469CP	- Clear	Polyester	2.2 (0.051) 3.0 (0.076)		63 (1104)	Synthetic 75 (81)		130	Excellent tear, impact and abrasion resistance; 8469CP is a custom printed version	
8470 8470CP	- Clear	Polypropylene	2.0 (0.051) 3.1 (0.079)		36 (615)	Synthetic Rubber 55 (60)		160	Good adhesion to variety of surfaces including polypropylene, paper, polyethylene; 8470CP is a custom printed version	
8622	Red	Reinforced Polypropylene	8.4 (0.21)		190 (3320)	n/a No Functional Adhesive		.3(1)		

## 3M<sup>™</sup> Tape Pads

#### No Dispenser? No Problem!

- **Portable** "peel and stick" convenience, 25 sheets per pad
- Adheres to bags, boxes, plastic film, powder coats, metals and glass
- Removable tab for easy handling
- Stores easily in pockets, drawers, tool boxes and part carts
- Used to repair, patch, seal, protect, reinforce, close and trap





Product	Sheet Size(s)	Color	Tape Material	Total Thickness mil (mm)	Tensile Strength lb/in (N/100 mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Elongation (%)	Tab
802	4" x 6"	Matte	Acetate	2.0 (0.05)	15 (265)	Acrylate	1.5 (1.6)	15	Repositionable matte finish, write on surface
809G	Custom Size	Transparent, Red, Yellow	Polypropylene	3.1 (0.079)	35 (613)	Synthetic Rubber	55 (60)	160	Removable or Permanent
809GP	Custom Size w/Custom Print	Transparent, Red, Yellow	Polypropylene	3.1 (0.079)	35 (613)	Synthetic Rubber	55 (60)	160	Removable or Permanent
809S	Custom Size, w/Custom Backsheet	Transparent	Polypropylene	3.1 (0.079)	35 (613)	Synthetic Rubber	55 (60)	160	Removable or Permanent
819	4" x 6"	Clear	Bi-Directional Filament	5.7 (0.145)	150 (2627)	Synthetic Rubber	100 (109)	6	Removable
822	4" x 6"	Transparent	Polypropylene	3.1 (0.079)	35 (613)	Synthetic Rubber	55 (60)	160	Removable
3750P	2" x 6"	Transparent	Polypropylene	3.1 (0.079)	35 (613)	Synthetic Rubber	55 (60)	160	Removable

## Scotch® Bag Conveying Tapes

- A high performance tape designed to convey a food grade preservation bag through the bag manufacturer's forming and packaging process
- Product constructions with or without reinforcement can meet a range of price/performance needs
- The pressure sensitive adhesive is specifically formulated to provide consistent adhesion to polyethylene



Product	Tensile Strength lb/in (N/100 mm)	Backing Material	Reinforcement	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Total Thickness mils (mm)	Elongation (%)	Color	Width(s)	Core Size
ASTM Test Method	D-3759				D-3330	D-3652				
8631	160 (2800)	Polypropylene	Polypropylene	Synthetic Rubber	67 (73)	6.0 (0.15)	30%	Clear	1/4"	6"
8635	140 (2452)	Polyethylene	None	Synthetic Rubber	62 (68)	4.0 (0.102)	60%	Black	6mm, 9mm	6"

# 3M<sup>™</sup> Hang Tabs

- Clear, durable, polyester tabs with a pressure-sensitive adhesive for easy in-store repair of damaged packaging such as torn punches in chipboard header cards
- Clear tabs do not obscure packaging graphics — showcases existing packaging graphics and messaging
- Pre-cut, bendable tab format for convenience and ease of use
- Sticks to most product or packaging surfaces for store display applications









J-Hook Consumer-friendly option, encourages item selection from anywhere on peg



**Round Hole** For single-wire pegs



Delta Hole For wider double-wire pegs or self-centers on standard pegs

177

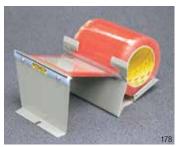
F	Product	Size (height x width)	Hole Style	Color	Hang Tabs per Pad	Backing Material	Total Thickness mil (mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)
1	1072	7/8" x 1-3/8"	J-Hook	Clear	Individual	Polyester	25.8 (0.66)	Synthetic Rubber	175 (192)
1	1074	1" x 2"	Round	Clear	10 per pad	Polyester	13.5 (0.34)	Synthetic Rubber	55 (60)
1	1075	2" x 2"	Delta	Clear	10 per pad	Polyester	13.5 (0.34)	Synthetic Rubber	55 (60)
1	1076	2" x 2"	Round	Clear	10 per pad	Polyester	13.5 (0.34)	Synthetic Rubber	55 (60)

Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

## Scotch® Pouch Tapes

### Strong, Low-Profile Attachment Solution

- "Trap it" with unique 3M tape construction strong adhesive tape area on the edges frame the large, clear non-adhesive window area in the middle
- Attach documents, packing lists, invoices, literature, catalogs, brochures, or even product samples, small part packets or other merchandise
- Polypropylene backing/synthetic rubber adhesive sticks well to corrugate and many other substrates
- Custom-print option can personalize your message



Scotch® Pouch Tape Dispenser M727 with Scotch® Pouch Tape 824 — Available in rolls for easy dispensing at pack stations.



Scotch® Pouch Tape Sheets 830 — Available in pads for portable back-pocket convenience. No liners help keep work areas clean of debris.

Product	Individual Pouch Size (h x w)	Printed Message	Applications	Core Size	Material Type	Total Thickness mils (mm)	Tensile Strength lb/in (N/100 mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Dispenser Options
Pads										
830	5" x 6"	"Documents Enclosed"	25 per pad	_	Polypropylene	2.5 (0.064)	30 (525)		50 (55)	_
830CP	5" x 6"	Custom Print	25 per pad		Polypropylene	2.5 (0.064)	30 (525)		50 (55)	_
830RCT	5" x 6" 6" x 10"	"Documents Enclosed"	25 per pad	_	Polypropylene	2.6 (0.066)	30 (525)	Synthetic	46 (50)	_
832	6" x 10"	"Documents Enclosed"	25 per pad	_	Polypropylene	2.5 (0.064)	30 (525)	- Rubber	50 (55)	_
832CP	6" x 10"	Custom Print	25 per pad	_	Polypropylene	2.5 (0.064)	30 (525)		50 (55)	_
8240P	5" x 6"	"Packing List Enclosed"	25 per pad	_	Polypropylene	2.5 (0.064)	30 (525)	_	50 (55)	_
Rolls										
824	5" x 6"	"Documents Enclosed"	333 per roll	3"	Polypropylene	2.5 (0.064)	30 (525)		50 (55)	M727 or M797
824RCT	5" x 6" 5" x 8" 6" x 10"	"Documents Enclosed"	500 per roll	3"	Polypropylene	2.6 (0.066)	30 (525)	_	46 (50)	M727 or M797
8240	5" x 6"	"Documents Enclosed"	500 per roll	3"	Polypropylene	2.5 (0.064)	30 (525)		50 (55)	M727 or M797
825	5" x 6"	"Documents Enclosed"	250 per roll	1"	Polypropylene	2.5 (0.064)	30 (525)	Synthetic	50 (55)	_
	5" x 8"	"Documents Enclosed"	500 per roll	3"	Polypropylene	2.5 (0.064)	30 (525)	Rubber	50 (55)	M727 or M797
827	6" x 8"	"Documents Enclosed"	500 per roll	3"	Polypropylene	2.5 (0.064)	30 (525)	_	50 (55)	M797
	6" x 10"	"Documents Enclosed"	400 per roll	3"	Polypropylene	2.5 (0.064)	30 (525)	-	50 (55)	M797
829	5" x 8"	"Packing List Enclosed"	333 per roll	3"	Polypropylene	1.9 (0.048)	22 (385)	_	40 (44)	M727 or M797
828CP	144 mm x 254 mm	Custom Print Custom Size	_	3"	Polypropylene	2.5 (0.064)	30 (525)		50 (55)	M797

## **Label Protection Tapes**

### Protect Labeled Shippers, Mailers, Envelopes, Tubes, Drums, Tubs

- Tape material options for use on wide range of substrates, in many applications including outdoor use
- High clarity for sharp read-through accuracy
- Bright color tape option draws attention to important label content



Product	Roll Width(s) Available	Roll Length	Color	Backing Material		Tensile Strength lb/in (N/100 mm)	Adhesive Type	Adhesion Strength oz/in (N/100 mm)	Elongation (%)	Comments
821	2", 3", 4", 5", 6"	72 yd.	Pink	Acetate	2.5 (0.063)	12 (210)	Acrylic	25 (27)	15	Low-glare matte finish. Write-on surface; Hand-tearable — no dispenser needed
856	1", 1.5", 2", 3", 4", 6"	72 yd.	Clear	Polyester	2.0 (0.051)	25 (438)	Acrylic	20 (22)	90	Excellent transparency and resistance to abrasion, moisture and chemicals; Go-to option for outdoor applications
3565	96mm, 120mm	100m	Clear	Polypropylene	1.9 (0.048)	22 (385)	Synthetic Rubber	40 (44)	160	Excellent transparency and conformability; Resists tearing, splitting, moisture, abrasion and smudges
3765	96mm, 120mm, 144mm	132m	Clear	Polypropylene	1.5 (0.038)	20 (350)	Acrylic	22 (24)	119	Good transparency; Recommended for cold temperature applications

Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

-load

182

side-load

## 3M<sup>™</sup> Packing List Envelopes

### Wide Variety of Choices for **Document Control and Protection**

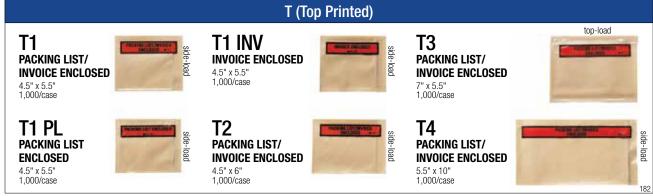
- Convenient peel-and-stick document protection
- Non-printed and printed with standard messages
- Custom sizes and/or custom printed messages
- Reclosable 3M™ Zipper Closure Envelope is available in two sizes
- Polyethylene backing/synthetic rubber adhesive/paper liner
- Backing thickness: 2.0 mil; Total thickness: 5.0 mil



Easy Inspection — For cross border shipping and other inspection situations, zipper closure envelopes open easily and close securely. Tough construction resists moisture and abrasion.



Secure Adhesion - High tack pressure sensitive adhesive on the back of the envelope grabs on contact and holds securely even to curved and flexible surfaces.





182

## Remote Sensing Tapes

### 3M™ Prismatic Remote Sensing Target 3000X

- Micro-cube corner sheeting made of a flexible synthetic resin which will perform well with polarized light
- Smooth, clear surface can be cleaned easily
- Aggressive pressure sensitive adhesive provides an excellent bond to most clean, wax-free, dry, relatively non-porous, weather resistant surfaces
- Adhesive is protected by a liner which is removed at the time of application and the reflector is pressed into position

### 3M™ Scotchlite™ Photoelectric Grade Smooth Surface Sheeting 7590

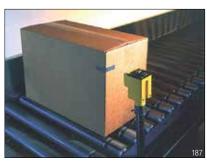
- Durable, flexible, wide angle, smooth-surface, retroreflective sheeting, specially designed for use in photoelectric applications such as retroreflective labels or marks
- Sheeting consists of special lens elements enclosed within a transparent resin, having a smooth flat outer surface and is supplied with a low-temperature, pressure-sensitive adhesive protected by a removable liner

### 3M™ Scotchlite™ High Gain Reflective Sheeting 7610

- High gain reflective industrial grade sheeting, exposed-lens, retroreflective, plastic-based material, pre-coated with a pressure-sensitive adhesive
- Adhesive is covered with a removable protective liner that offers a very high retroreflective efficiency and small optical elements

### Scotch® Photoelectric Scanning Tape 7800

- Exposed-lens retroreflective tape with a pressure-sensitive adhesive that is designed for use as expendable code marks in automatic warehouse or conveyor operations
- This product affords exceptional contrast with its background for increased accuracy, reliability, and depth-of-field in photoelectric sorting and classification systems and may be employed with automatic on-line applicators or manual dispensers for identification or simple sortation of paperboard shipping containers



3M™ Retroreflective Materials make it easy to design sensing systems based on simple, inexpensive photoelectric sensors. They increase readability, range and accuracy with greater control.





	Tape Structure			Typical Lum	inance Factor	Thickness –	Temperature Resistance –		
Product	(Backing/Adhesive)	Liner	Format	-4 deg.	45 deg.	Applied (in.)	Intermittent °F (°C)	Lens	Color
3000X	Micro-cube corner sheeting/ acrylic adhesive/paper liner	Yes	Sheets and Rolls	1000x	1500x	0.020	150 (65.5)	Protected	White with linear pattern
7590	Sealed reflective tape/ low temperature synthetic resin/liner	Yes	Rolls	200x	80x	0.007	400 (204)	Protected	Opaque White
7610	Exposed reflective tape/ synthetic resin/liner	Yes	Rolls	900x	700x	0.004	250 (121)	Exposed	Light Gray
7800	Exposed-lens reflective tape/ synthetic resin/linerless	No	Rolls	200x	100x	0.007	500 (260)	Exposed	Medium Gray

# Scotch® Tear Strip Tapes

### Easy Access With a Simple Pull

For easy opening of packages ranging from overnight envelopes to corrugated fiberboard, the recipient simply grabs and pulls the exposed end of a Scotch® Tear Strip Tape.

- Tensilized polypropylene tears through paper board and light to heavy weight fiber board with high pull-rate success
- Eliminates knives or other sharp edges from opening envelopes and panels



For overnight courier envelopes and mail order boxes, Scotch® Tear Strip Tape 8621 provides superior resistance to edge nicking and tearing compared to other film tear strip tapes without reinforcement.



Scotch® Tear Strip Tape 8626 with superior tensile strength tears through medium to heavy weight corrugated fiberboard as used in household detergent boxes.

Product	Backing Material	Reinforcement	Adhesive Type	Tensile Strength lb/in (N/100 mm)	Total Thickness mils (mm)	Adhesion Strength oz/in (N/100 mm)	Elongation (%)	Color	Comments
ASTM Tes	t Method			D-3759	D-3652	D-3330			
8621	Polypropylene	Polypropylene	Synthetic Rubber	160 (2802)	5.2 (0.13)	64 (70)	30	White	Reinforced tear strip for improved nick resistance on a wide range of light- to heavy-weight paperboard and corrugated fiberboard
8624	Polypropylene	None	Synthetic Rubber	160 (2802)	4.5 (0.114)	65 (71)	30	Blue	Medium-strength tear strip for light- to medium-weight fiberboard packaging materials
8626	Polypropylene	None	Synthetic Rubber	220 (3853)	6.2 (.157)	75 (82)	30	lvory	Heavy duty high-strength tear strip for medium to heavy-weight fiberboard packaging materials

## Glossary

This glossary is compiled by the Pressure Sensitive Tape Council (PSTC) and 3M (terms identified with an asterisk). PSTC is the North American trade association for tape manufacturers and affiliate suppliers, dedicated to helping the industry produce quality pressure sensitive adhesive tape products in the global marketplace. Visit www.pstc.org for more information.

#### **Abrasion Resistance**

The ability of a tape to withstand rubbing and still function satisfactorily.

#### **Acrylic Adhesive\***

A pressure sensitive, viscoelastic blend of acrylic-based materials which may be modified by tackifying additives. Acrylic adhesives are a very broad class of materials and come in many types to achieve different properties.

#### **Adhesion to Backing**

The bond produced to the backing of the same tape or another tape backing.

#### **Adhesive Deposit or Residue**

Adhesive that is pulled away from the tape upon removal and remains on the surface to which it has been applied.

#### **Adjustable Case Sealer**

A case sealer that must be manually adjusted for box width and height. Accepts runs of one box size at a time.

#### **Article Letters\***

Letters if a MSDS does not exist on a product.

#### Backing

A relatively thin flexible material to which the adhesive is applied. Theoretically, any material that is reasonably flat, thin and flexible can be used as a tape backing.

#### **Backsize**

An occlusive coating applied to the nonpressure sensitive side of a porous backing, such as paper, in order to provide a satisfactory surface that the pressure sensitive adhesive side can contact when the tape is wound into a roll.

#### Caliper

The thickness (as of a sheet of paper) measured under specified conditions. See also THICKNESS.

#### Co-extruded\*

Refers to film extruded in individual layers with the possibility of different raw materials in each layer providing unique combined film properties.

#### Conformability\*

The ability for a tape to make arcs, circles, go into depressions, go over protrusions and still stay in one piece without slivering, tape lifting, necking down.

#### Containment

To confine and hold in place.

#### Controlled Unwind\*

When a balance is achieved between too low of an unwind, allowing the tape to prematurely unwind from its own backing, or too high, causing premature slivering or breaking when unwinding from its roll.

#### **Elastomer**

An elastic, polymeric substance, such as natural or synthetic rubber.

#### **Elongation (Stretch, Ultimate Elongation)**

The distance a tape will stretch in the machine or cross direction before breaking under controlled conditions, expressed as a percentage of original length. Elongation is not necessarily an indication of conformability.

#### Extruded\*

A manufacturing process where material is forced through a nozzle (like extruded film or backing). Better for lay-flat than skived.

#### FOL.

Full overlap.

#### **Filaments**

Thin, longitudinal yarns or threads of glass, polyester, nylon or other high strength materials.

## Holding Power (Shear Adhesion, Shear Resistance)

The ability of a tape to resist static forces applied in the same plane as the backing. Usually expressed in a time required for a given weight and length of tape to shear free from a vertical panel.

#### **Hot Melt (Pressure Sensitive Adhesive)**

A pressure sensitive adhesive, applied to the backing in hot liquid form, which then cools to form a conventional pressure sensitive adhesive.

#### Humidity

The moisture content of the air. Actual humidity is the number of grams of moisture in the air at any given time. Relative humidity is the percent of moisture relative to the maximum that air at any given temperature can retain without precipitation.

#### Impact Resistance (Shock Resistance)

The ability of a tape to resist sudden impacts, pulls, or shocks as may sometimes be encountered by packages in transit.

#### L-Clip

Tape seal applied over the edge of non-RSCs with one leg down the side and the other on the top and/or bottom.

#### **Moisture Vapor Transmission Rate**

A measure of the rate of water vapor transmission through a pressure sensitive product usually measured in grams per square meter per 24 hours.

#### **MOPP**

Monoaxially-oriented polypropylene tape construction.

#### NPE\*

An NPE number is used to designate an experimental product. NPE products are often provided to customers for evaluation purposes only, and may or may not be commercialized.

#### Non-RCS

All box structures other than RSC (Regular Slotted Carton).

#### Off-Core

A roll of tape in which the layers are in correct alignment, but the tape is displaced sideways on the core.

#### **Opacity**

The ability of a tape to prevent the transmission of light.

#### Pad

Pre-cut, tape strips stacked on a pad for easy one-at-a-time removal.

## Glossary (cont.)

#### PE\*

The abbreviation for polyethylene. Usually extruded in a single (mono) layer.

#### **Peel Adhesion**

The force per unit width required to break the bond between a pressure sensitive adhesive tape and the surface to which it has been applied when the tape is peeled back at a controlled angle at a standard rate and condition.

#### **PLE**

Packing List Envelope.

#### **Pouch Tape**

Tape with adhesive-free area within a perimeter of pressures sensitive adhesive. When applied the adhesive-free area forms a containment pouch.

#### PP\*

Abbreviation for polypropylene. Usually manufactured as a single (mono) layer via a casting process.

#### **Pressure Sensitive**

A term commonly used to designate a distinct category of adhesive tapes and adhesives which in dry form (solvent/water free) are aggressively and permanently tacky at room temperature and that firmly adhere to a variety of dissimilar surfaces upon mere contact without the need of more than finger or hand pressure. These products require no activation by water, solvent, or heat in order to exert a strong adhesive holding force toward such materials as paper, plastic, glass, wood, cement, and metal. They have sufficient cohesive holding power and elastic nature so that, despite their aggressive tackiness, they can be handled with the fingers and removed from smooth surfaces without leaving a residue.

# Quick Stick (Finger Tack, Initial Adhesion, Wet Grab)

See TACK.

#### **Random Case Sealer**

A case sealer that automatically adjusts for case width and height. Typically used for runs of different box sizes.

#### Recouperage

To salvage goods within a container that has broken or opened during shipment.

#### **Release Force**

The measure of the force required to separate a unit width of pressure sensitive tape from a release coated surface at a controlled angle and speed.

#### **Remote Sensing**

The technique or process of obtaining data or images from a distance.

#### Retroreflective

Surface, material, or device that reflects light back to its source.

#### **RGT**

Reinforced Gum Tape.

#### RSC

Regular Slotted Carton.

#### Rubber Adhesive\*

A pressure sensitive, viscoelastic blend of polymeric rubber-based materials and tackifying resin. The rubber materials may be natural or synthetic. Rubber adhesives are a very broad class of materials and come in many types to achieve different properties.

#### **Shear Adhesion**

The time required, under specified test conditions (surface area, weight load), to slide a standard area of pressure sensitive tape from a standard flat surface in a direction parallel to the surface.

#### **Single Faced (Coated)**

A tape to which a pressure sensitive adhesive is applied to only one side of the backing.

#### Solvent/Chemical Resistant\*

Ability to resist common solvents or chemicals.

#### **Surface Energy (Surface Wetting Ability)**

The measure of surface tension in dynes. The lower the surface energy of a substrate, the more difficult it becomes for an adhesive or coating to wet out that surface.

#### Tack

The property of a pressure sensitive adhesive that allows it to adhere to a surface under very slight pressure. It is determined by the ability of the adhesive to wet quickly the surface it contacts.

#### **Tear Resistance**

The force required to propagate a tear in a tape in a given direction after the tear has been initiated.

#### Telescoping

A sideways sliding of the tape layers, one over another, such that the roll looks like a funnel or a telescope, usually occurring over a period of time.

#### **Tensile Strength**

The force required to break a unit width of tape by controlled pulling on opposite ends of the piece.

#### Thickness (Caliper, Gauge)

The perpendicular distance from one surface of either a tape, backing or adhesive to the other, usually expressed in mils, thousandths of an inch or millimeters. This is usually measured under controlled slight pressure with a special gauge.

#### TSCA\*

Toxic Substances Control Act.

#### **U-Clip**

Tape seal applied to an RSC carton with tape legs down both sides of the carton and across the center seam.

#### **UL 723\***

UL 723 deals mainly with flammability.

#### **Unwind or Unwind Adhesion**

The force required to remove tape from a roll under prescribed conditions.

#### Water Vapor Transmission (WVTR)

The weight of water vapor allowed through a controlled area of tape within a specified time period and under controlled conditions.

# Numerical Index

200a	8	802	34	3073	20	8470CP	34
200a3		809G	34	3073CP	21	8621	39
302	20	809GP	34	3199	21	8622	34
305	20	809S	34	3565	36	8624	39
311	20	819	34	3723	21	8626	39
311+2	20, 21	821	36	3732	21	8631	35
313	20	822	34	3750P	34	8635	35
315	20	824	36	3765	36	8651	29
351	20	824RCT	36	3771	21	8654	29
353	20	825	36	3772	21	8884	30
355	20	827	36	3775	21	8886	30
355CP	21	828CP	36	3779	21	8898	28
369	20	829	36	5910	23	8899HP	.25, 28
371	20	830	36	6141	21	8915	
371CP	21	830CP	36	6142	21	8916V	27
372	20	830RCT	36	6143	21	8919MSR	27
372CP	21	832	36	6144	21	8934	.25, 27
373	20	832CP	36	6145	21	8959	27
373CP	21	856	23, 36	6146	21	8988	27
375	20	860	25, 28	6147	21	a20	8
375CP	21	862	25, 29	7000a Pro	8	a20-s	8
600	23	863	29	7000a3 Pro	8	a80	9
605	23	864	29	7000r Pro	10	a80-3	9
610	23	865	29	7000r3 Pro	10	a80b	9
640	23	880	25, 27	7590	38	a80b-3	9
660	23	880MSR	27	7610	38	a80-t	9
681	23	890MSR	25, 27	7800	38	C22	15
690	23	890RCT	27	8000a	9	C23	15
694	33	893	25, 27	8000a3	9	C25	15
694CP	33	894	27	8004	23	F1	37
699	33	896	27	8240	36	FED1	37
699CP	33	897	25, 27	8240P	36	H10	15
700a-s	8	898	25, 27	8310	32	H12	15
800ab	9	898MSR	27	8315	32	H100	15
800ab3	9	899	27	8320	32	H121	15
800af	9	1072	35	8330	32	H122	15
800af3	9	1074	35	8340	32	H123	15
800asb	9	1075	35	8346HP	32	H128	15
800r	10	1076	35	8347	32	H129	
800r3	10	3000X	38	8350	32	H130	15
800rf	10	3071	20	8469	34	H131	15
800rf3	10	3071CP	21	8469CP	34	H133	15
800rks	10	3072	20	8470	34	H150	15

# Numerical Index (cont.)

H15315	HR93315	NP537	S63412, 15
H18015	M8215	NP637	S86712
H18315	M9615	NP937	S867II12
H19015	M70715	NPZ-L37	T137
H19215	M72715	NPZ-XL37	T1 INV37
H32015	M79715	P5215	T1 PL37
HB90015	M90015	P52W15	T237
HB90115	M92015	P5615	T337
HB90215	NP137	P56W15	T437
HB90315	NP237	P40015	W10015
HR8015	NP337	P41015	W20014, 15
HR8315	NP437	P44815	

# Product Name Index

3M <sup>™</sup> AccuGlide <sup>™</sup> Taping Heads	Bag S
2+11	8469
2+ SSTL11	84690
311	8470
HST11	84700
LHB11	8622
NPH11	Box S
3M-Matic <sup>™</sup> Adjustable	302
Case Sealers	305
200a8	311
200a38	313
700a-s8	315
800ab9	351
800ab39	353
800af9	355
800af39	355CI
800asb9	369
7000a Pro8	371
7000a3 Pro8	371CI
8000a9	372
8000a39	372CI
a208	373
a20-s8	373CI
a809	375
a80-39	375CI
a80b9	600
a80b-39	605
a80-t9	610
	640
3M-Matic™ Random Case Sealers	660
800r10	681
800r310	690
800rf10	856
800rf310	3071
800rks10	30710
7000r Pro10	3072
7000r3 Pro10	3073
	3723
Bag Conveying Tapes	30730
863135	3199
863535	

Bag Sealing Tapes
846934
8469CP34
847034
8470CP34
862234
Box Sealing Tapes
30220
30520
31120
31320
31520
35120
35320
35520
355CP21
36920
37120
371CP21
37220
372CP21
37320
373CP21
37520
375CP21
60023
60523
61023
64023
66023
68123
69023
85623
307120
3071CP21
307220
307320
372321
3073CP21
319921

Box Sealing Tapes (cont.)	
37712	1
37722	1
37752	1
37792	1
59102	3
61412	1
61422	1
61432	1
61442	1
61452	1
61462	1
61472	1
One Handler	
Carry Handles	_
83103	
83153	
83203	
83303	
83403 8346HP3	
83473	
83503	2
Cold Temperature Tapes	
311+2	1
37232	1
Custom Printed Tapes	
355CP2	
371CP2	
372CP2	
373CP2	
375CP2	
3071CP2	
3073CP2	1
Hang Tabs	
10723	5
10743	
10753	
10763	

High Strength Filament Tapes	
8602	5
8622	5
88025, 2	7
880MSR2	7
890MSR25, 2	7
890RCT2	7
89325, 2	7
8942	7
8962	7
89725, 2	7
89825, 2	7
898MSR2	7
8992	7
8899HP2	5
89152	7
8916V2	7
8919MSR2	7
893425, 2	7
89592	7
89882	7
Label Protection Tapes	
8213	6
8563	
35653	
37653	
	•
Light Duty Packaging Tapes	
6002	3
6052	3
6102	3
6402	3
6602	3
6812	3
6902	3
8562	3
59102	3
80042	3

# Xaniii

# Product Name Index (cont.)

Multipack Tapes
69433
694CP33
69933
699CP33
Non-RSC Solutions
S86712
S867II12
Packing List Envelopes
F137
FED137
NP137
NP237
NP337
NP437
NP537
NP637
NP937
NPZ-L37
NPZ-XL37
T137
T1 INV37
T1 PL37
T237
T337
T437
Pouch Tapes
82436
824RCT36
82536
82736
828CP36
82936
83036
830CP36
830RCT36
83236
832CP36
824036
8240P36

Recycled Corrugate Tapes
311+20
307120
307220
307320
Reinforced Strapping Tapes
86229
86329
86429
86529
865129
865429
000423
Remote Sensing Tapes
3000X38
759038
761038
780038
7000
Security Tapes
319921
373221
373421
377121
377221
377521
377921
Tape Pads
80234
809G34
809GP34
809S34
81934
82234
3750P34
Stretchable Tapes
888430
888630

Tape Dispensers
C2215
C2315
C2515
H1015
H1215
H10015
H12115
H12215
H12315
H12815
H12915
H13015
H13115
H13315
H15015
H15315
H18015
H18315
H19015
H19215
H32015
HB90015
HB90115
HB90215
HB90315
HR8015
HR8315
HR93315
M8215
M9615
M70715
M72715
M79715
M90015
M92015
P5215
P52W15
P5615
P56W15
P40015
P41015

ape Dispensers (cont.)	
<sup>2</sup> 44815	
663412, 15	
V10015	
V20014, 15	
ear Strip Tapes	
362139	
362439	
362639	
ensilized Polypropylene Tapes	
36028	
389828	
3899HP28	
Vater Activated Tapes	
314121	
314221	
314321	
314421	
314521	
314621	
314721	

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