

# **Medical Products Catalog**



## **Table of Contents**

ABOUT CCT	1
CCT CAPABILITIES	3
RELEASE LINER INFORMATION	4
CARRIER AND FACESTOCK INFORMATION	5
PRODUCT LINE	
Foam Tapes	6
Double Coated Tapes	10
Single Coated Tapes	
Non Woven Tapes	14
Film Tapes	15
Breathable Film Tapes	17
Transfer Tapes	18
PSA TAPE CONSTRUCTIONS	20
PSA TEST METHODS	21
UNDERSTANDING HOW TAPE WORKS	23
STANDARD OFFER	25
STANDARD PACKAGING	26
ORDERING INFORMATION	27



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#### **ABOUT CCT**

CCTTapes is a fast growing, specialty tape manufacturer with a proven track record of success in providing unique solutions to customer and market needs with unparalleled speed and industry leading quality.

CCT Tapes produces a broad portfolio of adhesive tape products, using both acrylic and synthetic rubber adhesives and a wide range of foams, films, and other substrates.

With a proven track record of success, we are a reliable and secure partner for today and the future. We offer a level of customization and quality in our product line that is unmatched in the industry.

Customer partnership is at the heart of how we work.



#### **The CCT Advantage**

We partner closely with our customers to provide:

- Best in class quality
- Flexibility in product offering
- Significant customization
- Creativity and problem solving
- **Speed** of response
- Competitive economics

#### THE CCT ADVANTAGE

Partnering with CCT for your PSA medical tape needs offers more than having just another supplier. Our products are manufactured and tested in a best in class quality system. We offer significant flexibility in our product offering and order sizes, with customization to meet your needs. Our team will bring creative problem solving and product design abilities, along with speed of response to ensure your deadlines are met. Our close partnerships with our material suppliers allows us to offer unique materials that can help to differentiate your products and enable growth.



#### **MEDICAL PRODUCTS**

CCT is proud to offer a broad medical tape portfolio designed for a wide range of applications. Our constructions include medical grade foams, polyesters, polyethylenes, nonwovens and polyurethanes as well as other specialty materials, with a range of hypoallergenic acrylic and rubber adhesives.

This brochure details some of our core products. In addition, we provide significant levels of customization to tailor products to your needs.

CCT provides support to customers with Operational Qualification (OQ), Performance Qualification (PQ), and Production Part Approval Process (PPAP) needs and requirements.

#### **SKIN SAFETY AND STERILIZATION**

All of the pressure sensitive adhesives (PSA) that we sell into the medical market have been thoroughly tested by an external lab and are compliant with ISO10993. The adhesives have been shown to be non-sensitizing, non-irritating and non-cytotoxic for direct skin contact applications. Our acrylic adhesives and synthetic rubber adhesives are all latex free. We do not use any natural rubber adhesives.

Our release liners and adhesives are also stable when exposed to gamma (30, 60 and 90 kGy) and ethylene oxide (EtO) sterilization processes.



#### **CCT CAPABILITIES**







#### Coating

CCT's coating equipment uses slot die coating heads, capable of highly precise coat weight control and we can coat hot melt adhesive products as well as solvent based adhesives and coatings.

Hot melts can be coated from 0.7 to 10 mils (12.5 to 250 microns)

Solvent based systems can be coated from 0.5 to 5 mils dry (12.5 to 125 microns)

We have modern process controls for all critical aspects of our process - coat weight, line speed, oven temperature, air flow and more. We have the ability to corona treat both sides of our films and facestocks.

#### Converting

Our slitting capability provides everything from edge trimming down to 0.25" slit widths. We offer a variety of slitting techniques and machines, designed to handle a wide range of substrates and facestocks. Our roll lengths can be tailored to your needs, from 750 up to 5,000 lineal feet.

#### **Product Testing and Quality Control**

Our ISO17025 accredited adhesives testing laboratory provides a broad range of tests to verify quality. We are able to implement custom test methods, when required. In addition, we have the ability to track batch history and provide all of the record keeping and data systems you would expect.

#### **Quality and Safety**

CCT is an ISO 9001:2008 certified manufacturer and our adhesives testing laboratory is certified to ISO 17025:2005. We pride ourselves in our high quality manufacturing systems and our goal is to supply custom coated products that meet or exceed all expectations.

We meet or exceed all regulations for emissions and waste production. We have state of the art environmental controls in our processes and continually monitor the safety of our operations.

CCT is a Responsible Tape Manufacturer (RTM) and member of the Pressure Sensitive Tape Council. RTM is a new initiative that aims to be an indicator of ethical and quality leadership in the tape industry.

CCT has made a commitment to ensure that our tape products are produced in a responsible manner, with consideration for the environment, workers, facilities and quality systems.







#### RELEASE LINER INFORMATION

CCT release liners are available in a wide range of paper, poly coated paper, polyester film and HDPE film substrates. These high quality release liners are offered with silicone release coatings on either one or both sides of the substrate. Our stock release liners are available in small minimum order quantities in full web width as well as slit to width with short lead times.

#### **DK (Densified Kraft) Liners**

Provides very tight caliper control, ultra smooth finish, good tensile strength with high temperature resistance. Excellent for rotary die cutting. Can be silicone release coated on one or two sides.

42# Caliper 2.3mil - White 60# Caliper 3.5mil - White 50# Caliper 2.9mil - White 80# Caliper 4.5mil - White

54# Caliper 3.1mil - White

#### **PCK (Poly Coated Kraft) Liners**

Feature excellent moisture stability and low curl properties. They can be polyethylene coated one or two sides, or silicone release coated on one or two sides.

12pt Caliper 13.0mil - Natural 84# Caliper 6.2mil - Natural 61# Caliper 4.6mil - White 96# Caliper 6.8mil - White

76# Caliper 5.6mil - White

#### **PET (Polyester) Film Liners**

Properties include: ultra smooth surface, excellent caliper control, high temperature resistance, chemical resistance, tensile and tear properties, superior moisture resistance and dimensional stability. Can be silicone release coated on one or two sides.

20PET Caliper 2.0mil - Clear 30PET Caliper 3.0mil - Clear

#### PE (Polyethylene) Film Liners

Ultra conformable, excellent tear strength, excellent chemical resistance, superior moisture resistance and smooth surface. PE film liners can be silicone release coated on one or two sides.

B4PE Caliper 4.0mil - Light Blue

#### **STOCK RELEASE LINERS**

Our diverse product range includes a selection of stock release liners, that are available in small minimum order quantities with short lead times. Stock release liners can be ordered in wide-web rolls, or can be slit to roll widths as narrow as 2" to suit your requirements.

Product	Thickness	Silicone Differential	Description
RL12C2-5550-411	13.0mil	3 to 1	12pt natural, poly-coated 2 sides, silicone 2 sides, 55" width
RL20C1-5550-001	2.0mil	n/a	2.0mil clear polyester, silicone 1 side, 55" width
RL42C1-5550-120	2.3mil	n/a	42lb white, densified Kraft, silicone 1 side, 55" width
RL76C2-5550-005	5.6mil	3 to 1	76lb white, poly-coated two sides, silicone 2 sides, 55" width
RL80C2-5550-144	4.5mil	3 to 1	80lb white, densified Kraft, silicone 2 sides, 55" width
RL96C1-6300-001	6.8mil	n/a	96lb white, poly-coated two sides, silicone 1 side, 63" width

#### CARRIER AND FACESTOCK INFORMATION

Carriers and facestocks are important components of double and single coated tapes. Double coated tapes are constructed with PSA on both sides of a carrier or support component. Single coated tapes are coated with PSA on one side of the support component, and here the term facestock is more commonly used. Carriers and facestocks can be engineered with a variety of substrates including films and foams and the choice will depend on the PSA and the end use application. The choice of carrier or facestock helps determine the properties of the final product.

#### **Films**

Film carriers used in PSA construction offer a variety of thickness, chemical resistance, barrier properties, tensile strength, elongation and temperature resistance.

**Polyester (PET)** is a clear plastic film carrier that can be used with most types of adhesives. It offers high tensile strength, excellent environmental stability and provides good barrier properties to most migratory chemicals.

**Polyurethane (PU)** is a soft, conformable film. It does not contain any plasticizers that could migrate out of the film and cause allergic reactions or hardening of the film over time. PU is also resistant to water, UV rays, chemicals, bacteria and fungus, and offers good water vapor transmission.

**Polyethylene (PE)** features a smooth surface, with excellent tear strength. This flexible carrier provides superior moisture resistance and chemical and solvent resistance.

**Polypropylene (PP)** features higher temperature and better chemical resistance than polyethylene, while still having good conformability.

#### **Foams**

Foam Carriers provide cushioning, conformability, and water resistance. Some examples are:

**Polyethylene (PE)** is a lightweight, resilient, closed-cell material available in a wide range of densities and colors. PE foam offers superb flexibility, strength and tear resistance, as well as resistance to water, chemicals, solvents and grease.

**Ethylene Vinyl Acetate (EVA)** is a closed cell foam that is soft and significantly more durable than PE foam with great recovery characteristics. EVA foam will also have greater tensile and elongation properties than PE foam. Features include, impact and vibration absorption, weather and chemical resistance, and acoustic and thermal insulation properties.

#### Nonwovens

Nonwoven carriers are engineered fabrics bonded together by entangling synthetic fibers either mechanically, thermally or chemically. Nonwoven carriers offer a range of specific features such as, resilience, stretch, conformability and strength, which vary based on the choice of fiber and bonding process.





#### **MDFT1332**

Conformable double coated foam tape with differential adhesives. Provides excellent adhesion with clean removal from skin without causing irritation. For a variety of medical end use applications. The liner side adhesive provides quick stick/bond for medical device assembly.

Adhesive Air Side: 1.6mil acrylic Adhesive Liner Side: 2.0mil rubber

Product	Foam Carrier	Liner	Width
MDFT1332-61-60	1/32" white EVA foam	61# PCK	60"

#### **MDFT1920**

A conformable foam coated on both sides with a high tack acrylic adhesive system. Designed for a variety of medical industry end uses that include, direct skin bonding, fabric/substrate design and medical devices.

Adhesive Air Side: 2.0mil acrylic Adhesive Liner Side: 2.0mil acrylic

Product	Foam Carrier	Liner	Width
MDFT1332-61-60	1/32" white EVA foam	84# PCK	60"

#### **MDFT2532**

A conformable, flexible foam tape with differential adhesives. For a variety of medical end use applications. Constructed with reliable air side adhesion to a variety of substrates, and a liner side adhesive that provides quick stick/bond for device assembly.

Adhesive Air Side: 1.6mil acrylic Adhesive Liner Side: 2.0mil rubber

Product	Foam Carrier	Liner	Width
MDFT2532-61-60	1/32" white EVA foam	61# PCK	60"

#### **MDFT3500**

A single coated foam tape, constructed with a medical grade adhesive system. Used in a variety of medical applications for direct skin bonding, EKG and defibrillator pads, fabric/substrate design and medical devices.

Adhesive: 2.0mil acrylic

Product	Foam Carrier	Liner	Width
MDFT3500-96-60	1/32" white EVA foam	96# PCK	60"





#### **MDFT3502**

Single coated foam tape constructed with a high performance medical grade adhesive system. The foam is corona treated on both sides to enhance anchorage of the PSA and future printing or bonding. Designed for a variety of medical industry end use applications.

Adhesive: 2.0mil acrylic

Product	Foam Carrier	Liner	Width
MDFT3502-96-60	1/16" white EVA foam	96# PCK	60"

#### **MDFT3514**

Conformable single coated foam tape. Constructed with a specially formulated, high performance adhesive system with good LSE bonding. Designed for a variety of medical industry end uses that include direct skin bonding, fabric/substrate design and medical device application.

Adhesive: 2.0mil acrylic

Product	Foam Carrier	Liner	Width
MDFT3514-96-60	1/16" white EVA foam	96# PCK	60"

#### **MDFT3600**

A double coated, conformable white foam tape designed to adhere well to delicate skin. It is ideal for pediatric and neonatal applications and suitable for a variety of medical industry end uses. The foam carrier is supported by a white poly-coated liner for product stability and die cutting.

Adhesive Air Side: 1.8mil acrylic Adhesive Liner Side: 1.8mil acrylic

Product	Foam Carrier	Liner	Width
MDFT3600-76-60	1/32" white EVA foam	76# PCK	60"

#### **MDFT4500**

A soft white single coated foam tape with a gentle, low tack adhesive system. Designed for a variety of direct skin contact applications where flexibility, comfort and gentle removal is desired. The conformable, low profile foam is supported by a poly-coated Kraft liner for product stability and enhanced die cutting capability.

Adhesive: 1.3mil acrylic

Product	Foam Carrier	Liner	Width
MDFT4500-84-60	1/32" white EVA foam	84# PCK	60"

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#### **FOAM TAPES**



#### **MDFT4502**

A single coated white foam tape with good LSE bonding. Designed for a variety of direct skin contact applications where flexibility, comfort and gentle removal is desired. Medical industry end use applications include, direct skin bonding, fabric/substrate design and medical devices.

Adhesive: 1.3mil acrylic

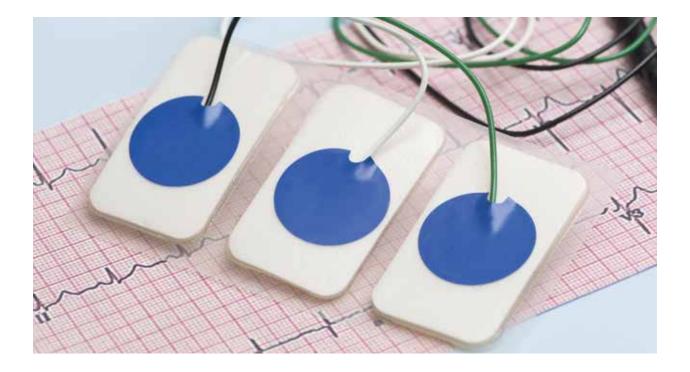
Product	Foam Carrier	Liner	Width
MDFT4502-96-60	1/16" white EVA foam	96# PCK	60"

#### **MDFT4516**

Soft white foam coated with a high tack acrylic adhesive system that provides a secure and comfortable bond to skin. Designed for a variety medical industry end use applications, including base pad substrate for anesthetic monitoring. Provides excellent adhesion to a variety of substrates.

Adhesive Air Side: 2.3mil acrylic Adhesive Liner Side: 2.3mil acrylic

Product	Foam Carrier	Liner	Width
MDFT4516-76-60	1/16" white EVA foam	76# PCK	60"
MDFT4516-84-60	1/16" white EVA foam	84# PCK	60"







#### **MDFT4532**

A white foam tape coated on both sides with a high tack, acrylic medical adhesive system. Designed for a variety medical industry end uses that include direct skin bonding, fabric/substrate design and medical device applications. Provides excellent adhesion to a variety of substrates.

Adhesive Air Side: 2.3mil acrylic Adhesive Liner Side: 2.3mil acrylic

Product	Foam Carrier	Liner	Width
MDFT4532-76-60	1/32" white EVA foam	76# PCK	60"
MDFT4532-84-60	1/32" white EVA foam	84# PCK	60"

#### **MDFT7040**

A double-coated white foam tape constructed with a high performance medical grade acrylic adhesive system. Designed for a variety of medical industry applications. The flexible foam carrier provides excellent conformability and is supported by a poly-coated liner for product stability and enhanced die cutting.

Adhesive Air Side: 2.0mil acrylic Adhesive Liner Side: 2.0mil acrylic

Product	Foam Carrier	Liner	Width
MDFT7040-84-60	20mil white EVA foam	84# PCK	60"

#### **MDFT7200**

A white single-coated pressure sensitive foam tape. Constructed with a specially formulated, high performance medical grade acrylic adhesive system. Used for a variety of medical industry applications. The foam carrier is designed for maximum flexibility and excellent conformability. Supported by a natural polycoated liner for product stability and enhanced die cutting.

Adhesive: 2.0mil acrylic

Product	Foam Carrier	Liner	Width
MDFT7200-84-60	20mil white EVA foam	84# PCK	60"

#### MDFT901PE

Conformable, single-coated foam tape. Constructed with a high performance medical grade acrylic adhesive system. Designed for a variety of medical end use applications. The foam carrier is designed for excellent conformability, and supported by a natural poly-coated liner for product stability and enhanced die cutting.

Adhesive: 1.8mil acrylic

Product	Foam Carrier	Liner	Width
MDFT901PE-61-60	20mil tan EVA foam	61# PCK	60"





#### MD1309

Designed for a variety of medical end use applications. Engineered for quick extensible bond to many low surface energy films including polypropylene and polyethylene.

Adhesive Air Side: 1.3mil rubber Adhesive Liner Side: 1.8mil rubber

Product	Carrier	Liner	Width
MD1309-60-54	0.5mil PET	60# DK	54"

#### **MD2010**

Constructed with a specially designed medical grade rubber based permanent adhesive on both the liner and air side. Suitable for a variety of medical industry end use applications.

Adhesive Air Side: 1.6mil rubber Adhesive Liner Side: 1.4mil rubber

Product	Carrier	Liner	Width
MD2010-76-60	0.5mil PET	76# PCK	60"

#### **MD2010B**

Constructed with a specially designed medical grade permanent adhesive on both sides. For a variety of medical end uses including direct skin bonding, fabric/substrate design and medical device application.

Adhesive Air Side: 2.5mil rubber Adhesive Liner Side: 2.5mil rubber

Product	Carrier	Liner	Width
MD2010B-76-60	0.5mil PET	76# PCK	60"

#### **MD2038**

A permanent adhesive system on both sides. Designed for a variety of medical end use applications. Excellent adhesion to a variety of substrates, including low surface energy plastics. Quickly bonds to difficult to stick to design materials such as breathable viral barrier nonwoven drapes for medical suit assembly.

Adhesive Air Side: 1.2mil rubber Adhesive Liner Side: 1.6mil rubber

Product	Carrier	Liner	Width
MD2038-60-54	0.5mil PET	60# DK	54"
MD2038-60-60	0.5mil PET	60# DK	60"

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#### **MD4001**

A double coated tape with permanent adhesives on both the liner and air side. Designed for a variety of medical industry end use applications. Provides excellent adhesion to many substrates including spunbond and meltblown nonwovens and multi-layer nonwoven constructions such as SMS.

Adhesive Air Side: 1.6mil rubber Adhesive Liner Side: 2.0mil acrylic

Product	Carrier	Liner	Width
MD4001-76-60	0.5PET	76# PCK	60"

#### MD5001

A medical grade double coated tape constructed with a high tack, aggressive acrylic adhesive system. Provides excellent adhesion to many substrates for a variety of medical industry end use applications. It is used as a carrier in assembly of test tube seals.

Adhesive Air Side: 1.5mil acrylic Adhesive Liner Side: 1.5mil acrylic

Product	Carrier	Liner	Width
MD5001-76-44	0.5mil PET	76# PCK	44"
MD5001-76-54	0.5mil PET	76# PCK	54"

#### MD5033

A conformable double coated transparent polyethylene film. This flexible tape is constructed with a medium tack, skin-friendly adhesive on both sides. Designed for medical devices and skin attachment for extended periods. Adheres well to a variety of substrates including foams, films and nonwovens.

Adhesive Air Side: 1.8mil acrylic Adhesive Liner Side: 1.8mil acrylic

Product	Carrier	Liner	Width
MD5033-76-60	3.0mil PE	76# PCK	60"

#### **MD5328**

A specialty designed medical grade adhesive on both the liner and air sides. Engineered with a reliable biocompatible adhesive. Designed for a variety of medical industry end use applications. Used as an assembly aid/adhesive backing for lateral flow diagnostic test strips.

Adhesive Air Side: 1.4mil acrylic Adhesive Liner Side: 1.4mil acrylic

Product	Carrier	Liner	Width
MD5328-76-60	0.5mil PET	76# PCK	60"

#### **SINGLE COATED TAPES**

A single coated pearlized white oriented polypropylene film tape that is constructed with a high performance medical grade adhesive. It is designed for a variety of medical end use applications, such as TENS assembly and oximetry. The OPP carrier is suitable for printing.

Adhesive: 1.1mil rubber

**MDSC10WR** 

Product	Facestock	Liner	Width
MDSC10WR-54-54	1.0mil white OPP	54# DK	54"

#### MDSC112TT

A tan tricot fabric laminated to a white polyolefin film and coated with a high tack adhesive for long term wear. The conformable backing is flexible and breathable for increased patient comfort. Designed for a variety of medical uses that include direct skin contact, medical device attachment and sensor components.

Adhesive: 1.8mil rubber

Product	Facestock	Liner	Width
MDSC112TT-60-55	Tan tricot	60# DK	55"

#### **MDSC11WA**

A single coated pearlized white oriented polypropylene film tape. Designed for a variety of medical industry end uses that include direct skin bonding, fabric/substrate design and medical applications such as ostomy and oximetry. The OPP carrier is suitable for printing.

Adhesive: 1.4mil acrylic

Product	Facestock	Liner	Width
MDSC11WA-54-54	1.0mil white OPP	54# DK	54"

#### MDSC21WMR

A single coated pearlized white oriented polypropylene film tape which is metalized on one side. Constructed with a high performance medical grade adhesive system. Designed for a variety of medical industry end uses that include direct skin bonding, fabric/substrate design and medical applications such as TENS pads and oximetry. The OPP carrier is suitable for printing.

Adhesive: 1.1mil rubber

Product	Facestock	Liner	Width
MDSC21WMR-54-54	1.1mil white metalized OPP	54# DK	54"





#### **MDSC3318**

PE film tape constructed with a specially formulated, high performance medical grade acrylic adhesive system. Designed for a variety of medical end use applications.

Adhesive: 1.8mil acrylic

Product	Facestock	Liner	Width
MDSC3318-61-60	3.0mil PE	61# PCK	60"

#### **MDSC5314**

A single coated film tape, constructed with a high performance medical grade acrylic adhesive system. Designed for a variety of medical end use applications such as ostomy and oximetry.

**Adhesive:** 1.4mil acrylic

Product	Facestock	Liner	Width
MDSC5314-61-54	1.0mil PET	61# PCK	54"

#### MDSC700

Single coated tape constructed with a white polyethlene facestock. The biocompatible high tack rubber adhesive system has excellent quick stick and is designed for premium label applications. It is specially designed to bond to a variety of substrates and processes well through a variety of converting procedures. Provides a printable film reinforcement for EKG top cover designs.

Adhesive: 1.2mil rubber

Product	Facestock	Liner	Width
MDSC700-42-63	3.0mil high strength PE	42# DK	63"

#### MDSCF1110

A single coated PET with welded foil layer. The aggressive, biocompatible adhesive system is designed to adhere securely to a variety of substrates and provide good quick stick. Applications include assembly of grounding pads and other devices. Easily die cut and converted.

Adhesive: 1.0mil rubber

Product	Facestock	Liner	Width
MDSCF1110-50-55	0.5mil PET foil weld	50# DK	55"

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#### **NONWOVEN TAPES**



#### **MD5000**

A white single coated nonwoven tape that provides excellent conformability and die-cut characteristics. Applications include pediatric and stress electrodes and applications where breathability and conformability are required.

Adhesive: 1.7mil acrylic

Product	Carrier	Liner(s)	Width
MD5000-96-60	2.4oz white spunlace	96# PCK	60"

#### **MD5200**

A blue single coated nonwoven tape providing excellent die-cut characteristics. Applications include surgical drape assembly, stress electrodes, and covers where breathability and conformability are required.

Adhesive: 1.7mil acrylic

Product	Carrier	Liner(s)	Width
MD5200-96-60	2.4oz blue spunlace	96# PCK	60"

#### **MD5260**

A spunlace nonwoven heat welded to a polyurethane film and coated with a medical grade adhesive. With good conformability and rapid wet-out to a variety of substrates, the construction provides a water barrier while still maintaining breathability.

Adhesive: 1.8mil acrylic

Product	Carrier	Liner(s)	Width
MD5260-50-60	1.3oz spunlace welded to 1.0mil PU	50# DK	60"

#### MD5400

Tan single coated nonwoven PSA tape with a high performance medical grade adhesive system. Applications include medical stress electrodes, pads and covers where breathability and conformability are required.

Adhesive: 1.7mil acrylic

Product	Carrier	Liner(s)	Width
MD5400-96-60	2.4oz tan spunlace	96# PCK	60"

#### MD5624

Single coated nonwoven PSA tape with a high performance medical grade adhesive system. Applications include medical stress electrodes, pads and covers where breathability and conformability are required.

Adhesive: 1.8mil acrylic

Product	Carrier	Liner(s)	Width
MD5624-42-60	2.4oz white spunlace	42# DK	60"





#### **MDF5003**

A matte clear film tape, constructed with a specially formulated, high performance medical grade acrylic adhesive system. Designed for a variety of medical industry end use applications.

Adhesive: 2.0mil acrylic

Product	Carrier	Liner(s)	Width
MDF5003-54-60	3.0mil matte clear LDPE	54# DK	60"
MDF5003-60-60	3.0mil matte clear LDPE	60# DK	60"

#### **MDF5005**

Medical film tape constructed with a specially formulated, high performance acrylic adhesive system. Utilized in a variety of medical end use applications for direct skin bonding, fabric/substrate design and medical devices including electrodes, incise windows and surgical drapes.

Adhesive: 1.75mil acrylic

Product	Carrier	Liner(s)	Width
MDF5005-50-60	5.0mil matte clear PVC	50# DK	60"

#### **MDF5005H**

A 5.0mil vinyl tape constructed with a specially formulated, high performance medical grade acrylic adhesive system. The vinyl carrier is designed for printing. Utilized in a variety of medical end use applications for direct skin bonding, fabric/substrate design and medical devices including electrodes, incise windows and surgical drapes.

Adhesive: 2.2mil acrylic

Product	Carrier	Liner(s)	Width
MDF5005H-50-60	5.0 mil matte clear PVC	50# DK	60"

#### **MDF5005L**

A matte clear film tape constructed with a specially formulated, high performance medical grade acrylic adhesive system. Utilized in a variety of medical industry end uses for direct skin bonding, fabric/substrate design and medical device applications including electrodes, incise windows, surgical drapes and assembly.

Adhesive: 1.2mil acrylic

Product	Carrier	Liner(s)	Width
MDF5005L-50-60	5.0mil matte clear PVC	50# DK	60"

#### **FILM TAPES**



#### **MDF5017**

MDF5017 is constructed with a specially formulated, high performance medical grade acrylic adhesive system on a printable film. For a variety of medical end use for fixation devices, skin bonding, fabric/substrate design and medical devices. Applications include incise windows, surgical drapes and assembly.

Adhesive: 2.0mil acrylic

Product	Carrier	Liner(s)	Width
MDF5017-60-60	1.7mil LDPE	60# DK	60"

#### **MDF50178**

A LDPE film tape constructed with a high performance adhesive system. For a variety of medical industry end use applications including fixation, skin bonding, fabric/substrate design and medical devices.

Adhesive: 0.8mil acrylic

Product	Carrier	Liner(s)	Width
MDF50178C-60-60	1.7mil clear LDPE	60# DK	60"
MDF50178T-60-60	1.7mil tan LDPE	60# DK	60"

#### **MDF5034**

A white film tape constructed with a high performance medical grade adhesive system. For use in medical industry applications including direct skin bonding, fabric / substrate design and medical device assembly.

Adhesive: 1.75 mil acrylic

Product	Carrier	Liner(s)	Width
MDF5034WV-50-60	3.4mil white PVC	60# DK	60"

#### **MDF5315**

A 3.0mil matte clear film tape, constructed with a high performance medical grade adhesive system. Designed for a variety of medical industry end uses that include: direct skin bonding, fabric / substrate design and medical device application.

Adhesive: 1.2mil acrylic

Product	Carrier	Liner	Width
MDF5315-61-54	3.0mil LDPE	61# PCK	54"
MDF5315-60-60	3.0mil LDPE	60# DK	60″

### **BREATHABLE, CONFORMABLE FILM TAPES**

#### **MDUF9000**

MDUF9000 is a flexible, transparent, breathable tape designed for a variety of medical industry end uses. Engineered for comfort, conformability and where high MVTR and a strong secure bond is desirable.

Adhesive: 1.2mil acrylic

Product	Carrier	Casting Sheet	Liner(s)	Width
MDUF9000-20PE-60	1.0 mil PU	2.0 mil PE	50# DK	60"

#### **MDUF9001**

Breathable, flexible, film tape engineered for comfort and conformability. For medical applications where high MVTR and a strong secure bond is desired.

Adhesive: 1.2mil acrylic

Product	Carrier	Casting Sheet	Liner(s)	Width
MDUF9001-80-60	1.0mil PU	PCK 80#	50# DK	60"

#### **MDUF9003**

Breathable tape with a medium tack adhesive. For direct skin bonding and medical device applications where high MVTR is desirable. Engineered for flexibility, comfort and conformability.

Adhesive: 1.2mil acrylic

Product	Carrier	Casting Sheet	Liner(s)	Width
MDUF9003-20PE-60	1.0mil PU	2.0mil PE	50# DK	60"

#### **MDUF9004**

A breathable, flexible tape with a medium tack adhesive system. Suitable for many skin adhesion applications for protection and securement. Engineered for comfort, conformability and where high MVTR is desirable.

Adhesive: 1.2mil acrylic

Product	Carrier	Casting Sheet	Liner(s)	Width
MDUF9004-80-60	1.0mil PU	80# PCK	50# DK	60"

#### **MDUBUF912**

A breathable medical tape with ultra-high MVTR through a unique film and acrylic adhesive combination. The high conformability and flexibility provides enhanced patient comfort during long term wear.

Adhesive: 1.2mil acrylic

Product	Carrier	Casting Sheet	Liner(s)	Width
MDUBUF912	1.0mil copolyester	2.0mil PP	50# DK	56"





#### **MDTF9111**

A medical grade adhesive system designed for excellent wet-out to a wide range of substrates, yielding strong bond strength to foams, nonwovens, metals, plastics and more. Designed for a variety of medical industry end use applications.

Adhesive: 1.4mil rubber

Product	Liner(s)	Width
MDTF9111-60-555	80# PCK	55.5″
MDTF9111-61-555	61# PCK	55.5″

#### **MDTF9112**

A medical grade adhesive system designed for excellent wet-out to a wide range of substrates. Yields excellent bond strength to foams, nonwovens, metals, plastics and more. For a variety of medical industry end use applications.

Adhesive: 2.0mil rubber

Product	Liner(s)	Width	
MDTF9112-80-54	80# PCK	54"	

#### **MDTF9113**

Specially formulated medical grade adhesive system. Designed for excellent wet-out to a wide range of substrates, yielding superior bond strength to foams, nonwovens, metals, plastics and more. For use in a variety of medical industry applications. Excellent adhesion to a variety of substrates.

Adhesive: 3.0mil rubber

Product	Liner(s)	Width
MDTF9113-80-54	80# PCK	54"

#### **MDTF9311**

An unsupported PSA transfer film. Constructed with a permanent medical adhesive designed to provide excellent wet-out to a variety of substrates, especially low surface energy plastics. For use in a variety of medical industry applications including direct skin bonding, fabric/substrate design, ostomy and oximetry.

Adhesive: 1.1mil acrylic

Product	Liner(s)	Width
MDTF9311-84-54	84# PCK	54"





#### **MDTF9571**

Unsupported transfer film constructed with a permanent medical grade adhesive that promotes excellent wet-out to a range of substrates. For a variety of medical industry assembly and construction applications that require an unsupported construction for conformability. Used as an assembly aid tape where multiple component bonding is desired.

Adhesive: 1.5mil acrylic

Product	Liner(s)	Width
MDTF9571-76-54	76# PCK	54"

#### **MDTF9572**

Unsupported transfer film constructed with a permanent medical grade adhesive that promotes excellent wet-out to a range of substrates. For a variety of medical industry assembly and construction applications that require an unsupported construction for conformability. Used as an assembly aid tape where multiple component bonding is desired.

Adhesive: 2.0mil acrylic

Product	Liner(s)	Width
MDTF9572-76-54	76# PCK	54″

#### **MDTF9573**

Unsupported transfer film constructed with a permanent medical grade adhesive that promotes excellent wet-out to a range of substrates. For a variety of medical industry assembly and construction applications that require an unsupported construction with heavier coat weight. Used as an assembly aid tape where multiple component bonding is desired.

Adhesive: 3.0mil acrylic

Product	Liner(s)	Width
MDTF9573-76-54	76# PCK	54"

CCT (Coating and Converting Technologies) product information is recommended as a general reference guide. All published materials and information concerning CCT products are based on information CCT believes to be reliable, but such information does not constitute a warranty. Because of the variety of possible uses of CCT products and the continuing development of new uses, the buyer should carefully consider the fitness and performance for each intended use and the buyer assumes all risks in connection with such use.

#### **PSA TAPE CONSTRUCTIONS**



**Double coated tapes** have an adhesive coated on both sides of a central carrier, often a thin (0.5 mil) polyester, but many films, papers, foams and more can be used. These products also use release liner, which is normally also double sided and uses a differential release to enable easy unwind and application. The adhesive on each side of the carrier can be the same, or different. Similarly, the two adhesives can be the same or different thicknesses.

**Single coated tapes** have an adhesive applied to one side of a backing material. The backing could be a film, paper, non-woven, foil, foam or many other materials. If the opposite side of the backing has a release coating, then the tape can be "self-wound" without the need for a release liner. If not, then a release liner is also commonly used.





**Transfer tapes** or unsupported tapes have a coating of adhesive on one side of a double sided release liner. There is no additional backing or supporting material. These tapes can be converted into other types of tape product by lamination to another material, or can be used directly to bond two materials together.

**Foam tapes** are single or double coated products, with a release liner, that use a layer of foam as either the backing or carrier. Most commonly this can be a polyethylene or polyurethane foam, although other types exist. The foams can come in many densities and thicknesses which all impart very specific properties to the tapes.



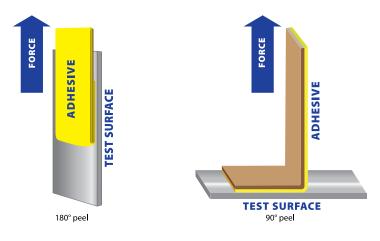
#### **PSA TEST METHODS**

Data sheets for PSA tapes contain a range of physical property measurements and understanding what these tests mean is important in being able to determine if a particular tape product is right for your application. The most common performance measures are peel, tack and shear. While there are many variants on how these tests are performed, the most common methods are described below.

#### Peel

Peel is a measure of adhesion – how well the tape sticks to a specific surface. It is measured by bonding a tape strip to a surface and then recording the force required to pull it off in a controlled manner.

For QC testing purposes, the most common test surface is stainless steel, although other materials are also used and may be seen on data sheets and application specific tests (such as glass, HDPE, PP, ABS and more). The



tape is applied to the surface with a defined amount of pressure and then allowed to remain on the surface for a controlled amount of time (often 20 minutes but tests using 24 hours, or more are also performed).

After that time, the tape is peeled off using a machine capable of measuring the force needed. A controlled speed is used (typically 12 inch/minute) as is a controlled angle (with 180° being the most common, although 90° may be used for some very thick tapes). The peel force is reported in units of force per width, such as ozf/in or N/25mm.

Controlling the speed and dwell time are key to getting consistent results due to the viscoelastic behavior of PSAs.

#### **Peel Test**

When the test strip is peeled away from the surface it can behave in one of several ways. The tape can remove cleanly from the surface, which is defined as adhesive failure. Alternatively, the tape can remove leaving some of the adhesive behind on the surface and some still on the tape backing, which is called cohesive failure. Combinations of the two are also possible, though less common.



#### Release

Release testing measures the force required to remove a tape sample from its release liner. It could be thought of as related to a peel test, except that instead of measuring the force required to remove the tape from a bonded substrate, it is a measure of force to remove the tape from the liner, expressed in force per width.

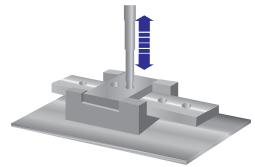
The test is performed using a long strip of tape which is separated from the liner at high speed. The test machines typically ramp up speed quickly, to around 2 m/s (78 in/s).

It is important to be aware that the release force varies with speed, and can be different when removing the tape from the liner at high speed versus lower speed. This can have implications for the end user, depending whether they plan to remove the liner by hand, or in an automated high speed process.

#### Tack

Tack is a measure of the initially stickiness of a tape – how sticky it feels when barely touched upon a surface, with no long dwell times or pressure applied. There are several methods commonly used when measuring tack – probe tack, loop tack and rolling ball tack.

A probe tack test involves moving a probe mechanically to briefly touch and pull away from the tape surface measuring the force required. The probe is typically stainless steel, but other materials can be used.



#### Shear

Shear is a measuring of the internal strength, or cohesion, of the tape – a measure of the load bearing properties of the tape.

The test is performed by sticking a known surface area of tape (often 1 square inch) to a test surface and then hanging a weight from the tape. The time until the tape fails is measured – which can range from minutes to days depending on the particular tape and the weight applied.



#### S.A.F.T. (Shear Adhesion Failure Temperature)

SAFT is a special modification on a standard shear test, designed to show the heat resistance of a tape in a load bearing situation. The sample assembly is identical to the shear test described above, but the test is then performed inside an oven. The oven is programmed to increase in temperature over a defined period of time (often 1°F per minute, for example) until a maximum temperature of around 400°F is reached, at which point the temperature is held constant. Instead of reporting a time to failure, as in a conventional shear test, SAFT results are reported as the temperature at which the sample failed during the ramp up cycle of the oven.

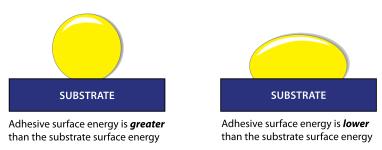
#### **UNDERSTANDING HOW TAPE WORKS**

Many different factors can have an effect on how well a tape will bond to a surface. Understanding these factors and how to control them can help ensure that the tape will perform as expected in your application.

In particular, in is important to consider surface energy, surface contaminants, roughness, overall shape, temperature and time. All of these play a role in how well and how quickly the tape will bond.

#### **Surface Energy**

The surface energy of a substrate (and an adhesive) will determine how easily the adhesive will wet out on the surface and how quickly an optimal bond will form. The term wet out refers to the flow of the adhesive across the substrate, forming close contact and therefore a strong bond. For a tape to wet out a substrate quickly, the surface energy of the adhesive must be lower than the surface energy of the substrate. This is common when bonding to metals and many engineered plastic, and so good bonds form readily with many different adhesives. When bonding to low surface energy materials (such as polyethylene, polypropylene and many powder coated metals) the adhesive could have a higher surface energy than the substrate and so not wet out rapidly. Rubber adhesives are generally lower surface energy than acrylics, and so will often bond more quickly. Also, additional treatments can be applied to the substrate (such as corona or plasma treatment) in order to temporarily raise its surface energy and therefore promote good bonding.



#### **Contaminants - Cleanliness**

When a tape bonds to a surface, it forms an intimate contact between the adhesive and the surface. If there are contaminants on the bonding surface (such as dust, oil, rust etc.) then the adhesive will contact those materials, and not the surface underneath.

In this case, the amount of adhesive contacting the substrate is reduced, as so, the strength of the adhesive bond is also reduced, and the tape may fail in the application.

Having a clean, dry surface is important to forming a good bond.



#### **Rough surfaces**

Sometimes the surface that the tape will stick to is not smooth – for example, wood, foams, textiles, or a plastic surface with an embossed texture. In these cases, the adhesive contact will initially be strongest only at the high points of the surface. Over time, or with pressure, the adhesive will flow and start to fill out the texture of the surface. Of course, it becomes important to use a thick enough tape to allow the adhesive to fill the depth of the texture. Thinner tapes may not be able to fill all of the surface voids, and may struggle to provide a strong enough bond.







SMOOTH SURFACE SLIGHT TEXTURE

Some adhesives will flow more than others, and more easily fill voids on the surface of the substrate. If the

texture is extreme, then it may become necessary to choose a very aggressive adhesive in order to maximize the bond strength in the areas where contact occurs.

#### **Curved surfaces**

When bonding to a surface that is not flat, some additional factors can start to affect bonding. The curved, or angled surface will induce forces on the edges or bend points in the tape, which can result in a debonding peel force and cause the tape to pull away from the surface. These forces are indicated by the arrows in the diagrams below. More flexible tapes will obviously conform better to the surface.



In these cases it becomes important to ensure that the tape selected has a strong enough adhesion to overcome these forces. This may require selection of a quite different tape than would be used to bond to the same material on a flat surface.

#### **Time and Temperature**

The way that a PSA tape performs is related to both time and temperature. A tape that bonds very well at room temperature but not perform as well if you try to form a bond at much lower temperatures. That's why our data sheets provide a minimum application temperature. The adhesive will become "glassy" as it gets cold and appear less tacky. The tack will recover though as the tape warms up again.

Time is also a very important factor to consider when using a tape. The adhesive on a tape needs time to flow and wet out the surface fully. As such, the bond strength will increase over time on most tapes, reaching its maximum strength a day or more after the bond is made. This is important to consider for applications which need to bear a load soon after bonding – a faster wetting, more aggressive product may be needed. At higher temperatures, wet out will be faster and bond strength will increase more quickly. This process will be slower at lower temperatures.

All of these points demonstrate the importance of testing a tapes performance in your exact application – which can differ substantially from the "ideal" situation represented on a product data sheet. At CCT we are happy to help translate your product needs into the ideal tape for your application.

#### **STANDARD OFFER**

CCT's standard offer represents the way that we sell our products - minimum quantities, roll sizes, packaging and beyond.

While we are always willing to accommodate special roll sizes and packaging needs, the options defined here will generally represent the most economical option.

#### **Lead Time and Minimum Order Quantity**

Two to three weeks lead time for all stock products. Lead time varies by product for custom items.

Minimum order of one roll for stock products. Minimums varies by product for custom items.

#### **Roll Lengths**

Product Line	Roll Width	Roll Length	Short Roll upcharge <sup>1</sup>
Foam Tapes 1/32" Foam 1/16" Foam 1/8" Foam	60" at all thicknesses	216 feet 108 feet 54 feet	\$0.18/MSI
All Other Tapes	44", 54" & 60"	1,500 feet	\$0.18/MSI

#### Typical Slitting Charges<sup>2</sup>

There are no upcharges for slit rolls greater than 6" wide.

Slit widths below 1" are subject to individual review and custom pricing.

Width	1" to < 2"	2" to <4"	4" to <6"	Setup Charge
Upcharge	\$0.35/MSI	\$0.18/MSI	\$0.10/MSI	\$125

#### **Pattern Coated Products**

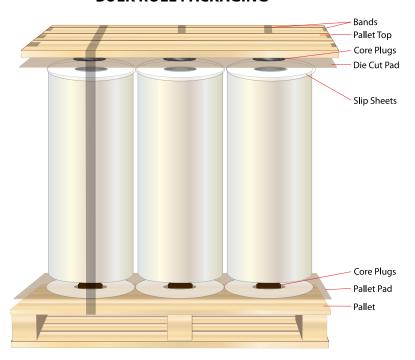
Striped pattern coating is available. All pattern coatings are custom products, with minimum orders from 5,000 to 10,000 MSI depending on the product. The additional cost for creating the pattern will vary depending on its complexity.

- 1. Short roll upcharge applies to rolls half or less of the standard length. Short rolls will be packed in boxes.
- 2. Charges are incorporated into quoted prices for slit products and not shown separately on quotes. Orders containing mixtures of slit widths cut from the same master will be custom quoted.

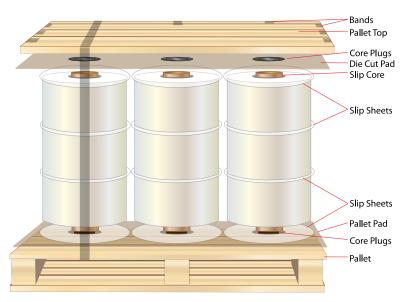
#### **STANDARD PACKAGING**

Medical PSA rolls are packed as illustrated here. In addition, each stack of rolls is bagged using a protective polyethylene bag. Pallet size and configuration are setup to best match the roll width, length and quantity. All pallets are stretch wrapped as a last step, with a minimum of five wraps for additional stability. Any other packaging is subject to review and a potential upcharge.

#### **BULK ROLL PACKAGING**



#### **SLIT ROLL PACKAGING**



#### **ORDERING INFORMATION**

Our customer support team is ready to assist you. Please contact us if you need product, technical or application assistance.

Phone: 215-271-0610

Sales Email: Sales@CCTtapes.com

Customer Service Email: Customer.Care@CCTtapes.com

CCT pressure sensitive adhesive tapes are manufactured at 44", 54" and 60" wide, as standard, with wider widths available.

For narrower width rolls, slitting services are available. Our slitting capability provides everything from edge trimming down to 0.25" slit widths. For slit sizes of 6" and greater, slit roll pricing is based on the full web width of the master roll. Total yield of the master width including any resulting offcut will be billed.

Converter roll lengths are typically 1,500 linear feet for all products except foam tapes. Roll lengths for foam tapes are outlined on the Standard Offer page and vary with the thickness of the foam.

Longer rolls may be available based on product, raw materials and CCT manufacturing limitations. Contact your CCT Technical Sales Representative for availability and pricing.

CCT prices and sells products in \$/MSI (\$/thousand square inches). The conversion factors listed here will help change MSI to alternative units of measure.

MSI	Square Feet
1	6.944
0.144	1

MSI	Square Yards	
1	0.772	
0.1296	1	

MSI	Square Meters		
1	0.645		
1.55	1		

#### **Conversions for standard roll sizes**

Roll Size	MSI	Square Feet	Square Yards	Square Meters
44" x 1500'	792	5,500	611.1	511
54" x 1500'	972	6,750	750	627
60" x 1500'	1,080	7,500	833.3	696.8

Roll Width	MSI to Linear Feet	Linear Feet to MSI
44"	1.894 x MSI	0.528 x LF
54"	1.544 x MSI	0.648 x LF
60"	1.389 x MSI	0.720 x LF



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