



English Last Revision Date: May, 2022

# Technical Data Sheet

3M<sup>™</sup> High Performance Double Coated Tape 9086

## **Product Description**

3M<sup>™</sup> Double Coated Tapes with 3M<sup>™</sup> Adhesive 375 provides a high level of adhesive peel and shear performance. The adhesive system used on these products provides good adhesion to both high and low surface energy substrates. The excellent initial tack ensures that a bond of good integrity is achieved soon after application.

## **Technical Information Note**

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

## Typical Physical Properties

Property	Values	Additional Information
Adhesive Type	Modified Acrylic	
Adhesive Carrier	Tissue	

	•
	iner
_	

Liner Thickness	0.07 mm	
Color	Translucent	
Liner Color	White with Black 3M Logo	View 🔨
Test Name: Primary		
Total Tape Thickness (mil)	7.5 mil	View ^
Test Method: ASTM D3652		
Total Tape Thickness (mm)	0.019 mm	View ^
Test Method: ASTM D3652		



Liner Thickness	3 mil	
Typical Performance Characteristics		
Property	Values	Additional Information
Short Term Temperature Resistance	248 °F	
Short Term Temperature Resistance	120 °C	
Long Term Temperature Resistance	85 °C	
Long Term Temperature Resistance	185 °F	
Static Shear	10000 min	View ^
Test Method: ASTM D3654 Notes: 1 in² sample size		
Static Shear	10000 min	View ^
Test Method: ASTM D3654 Notes: 1 in² sample size		
Solvent Resistance	Good	
UV Resistance	Excellent	
180° Peel Adhesion	15 N/cm	View ^
Test Method: ASTM D3330 Test Name: Faceside		
Dwell/Cure Time: 72.0 Dwell Time Units: hr		
Temp C: 23C Temp F: 72F Environmental Condition: 50%RH		
Substrate: ABS Backing: Aluminum Foil		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	137 oz/in	View ^
Test Method: ASTM D3330		



Test Name: Faceside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: ABS
Backing: Aluminum Foil

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion	16 N/cm	View ^	
Test Method: ASTM D3330			
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Stainless Steel Backing: Aluminum Foil Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	146 oz/in	View 🔨	
180° Peel Adhesion Test Method: ASTM D3330	146 oz/in	View 🔨	
	146 oz/in	View	

180° Peel Adhesion	18 N/cm	View 🔨	
Test Method: ASTM D3330			
Test Name: Faceside			
Dwell/Cure Time: 72.0 Dwell Time Units: hr			
Temp C: 23C			
Temp F: 72F Environmental Condition: 50%RH			
Substrate: Polycarbonate (PC)			
Backing: Aluminum Foil			
Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	162 oz/in	View 🔨	
Test Method: ASTM D3330			
Test Name: Faceside Dwell/Cure Time: 72.0			
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C			
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F			
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polycarbonate (PC)			
Test Method: ASTM D3330 Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polycarbonate (PC) Backing: Aluminum Foil			
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polycarbonate (PC)			



#### Test Method: ASTM D3330

Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Glass Backing: Aluminum Foil Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	146 oz/in	View ^
Test Method: ASTM D3330		
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Glass Backing: Aluminum Foil Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	7 N/cm	View ^

### Test Method: ASTM D3330

Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: High Density Polyethylene (HDPE) Backing: Aluminum Foil

180° Peel Adhesion	68 oz/in	View ^
Test Method: ASTM D3330		
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: High Density Polyethylene (HDPE) Backing: Aluminum Foil Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	13 N/cm	View ^
Test Method: ASTM D3330		
Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: High Pressure Laminate Backing: Aluminum Foil		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	119 oz/in	View ^



#### Test Method: ASTM D3330

Test Name: Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: High Pressure Laminate Backing: Aluminum Foil Notes: 12 in/min (300 mm/min)		
Plasticizer Resistance	Good	View ^

Notes: It is suggested that an evaluation is conducted prior to use to ensure compatibility. Dwell of 10 days at 158°F (70°C) will usually accelerate any potential plasticizer problems. Plasticizers typically found in materials like PVC and some rubbers.

#### Storage and Shelf Life

Store in original carton at 70°F (21°C) and 50% relative humidity.

If stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

#### **Bottom Matter**

ЗM Industrial Adhesives and Tapes Division 3M Center, Building 225-3S-06 St. Paul, MN 55144-1000 800-362-3550

## Trademarks

3M is a trademark of 3M Company.

## Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.

NOTWITHSTANDING ANY OTHER STATEMENT TO THE CONTRARY, 3M MAKES NO REPRESENTATIONS, WARRANTIES OR CONDITIONS WHATSOEVER, EXPRESS OR IMPLIED, REGARDING THE PRODUCT IF USED IN AN AUTOMOTIVE ELECTRIC POWERTRAIN BATTERY OR HIGH VOLTAGE APPLICATION, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY ON PERFORMANCE, LONGEVITY, SUITABILITY, COMPATIBILITY, OR INTEROPERABILITY, OR ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE.

## Handling/Application Information

Application Examples

- POP Displays
- Plastic Extrusions
- Metal Fabrication
- Blister Packs and Packaging
- Sports Equipment



- Badge and Nameplates
- Indoor/Outdoor Signs
- Fabric and Leather Stitching
- Blind Manufacturers
- Print Finishing
- Furniture Trim
- Splicing

#### References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40071907/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/? gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9086

#### **ISO Statement**

This product was manufactured under a quality system registered to ISO 9001 standards.

#### Information

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer:** 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.

Please recycle. ©3M 2007 (3/07)