

January, 2011

# 3M™ Double Coated Tape 92015

## **Product Description**

Finite Element Analysis (FEA) data is available for this product at: 3m.com/FEA

3M<sup>™</sup> Double Coated Tapes with 3M<sup>™</sup> Adhesive 200MP feature a thin polyester film for dimensional stability and improved handling with ease of die-cutting and laminating. The 3M adhesive 200MP provides exceptional temperature and chemical resistance.

#### **Product Features**

- A thin polyester carrier in the products provides dimensional stability and improved handling with ease of die-cutting and lamination compared to adhesive transfer tapes.
- 3M™ Adhesive 200MP provides exceptional temperature and chemical resistance and withstands tough application environments.



## **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		Attribute Modifier	Notes
Total Tape Thickness without liner	0.15 mm	5.9 mil		
Carrier Thickness	0.012 mm	0.5 mil		
Adhesive Type	200MP		Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Adhesive Type	200MP		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Adhesive Carrier	Clear Polyester			
Liner	58# Polycoated Kraft			
Liner Color	Tan		Primary	
Liner Thickness	0.11 mm	4.2 mil		

Adhesive Thickness		Attribute Modifier	Notes
0.069 mm		Backside	The caliper listed is based on a calculation from manufacturing controlled adhesive coat weight. While past data pages have listed nominal thicknesses of 1 and 2 mils, the coat weight (and theoretical caliper) has not changed.
2.7 mil		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
0.069 mm	2.7 mil	Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

Property: Adhesive Thickness

# **Typical Performance Characteristics**

Property	Values	Method	Test Condition	Notes
Additional Test notes	Not recommended for low energy plastics (polypropylene, polyethylene). For these surfaces, please refer to 3M™ Adhesive 300, 300LSE, 350, 360 and 300MP.			
Static Shear	>10,000 min	ASTM D3654	1000 g @ Room Temperature	1 in² sample size
Static Shear	>10,000 min	ASTM D3654	500 g @ 70°C (158°F)	1 in² sample size

Relative High Temperature Operating Ranges		Test Condition
149 °C	300 °F	Short Term (minutes, hours)
121 °C	250 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

180° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Substrate
7.7 N/cm	70 oz/in	15	min	Stainless Steel
8.2 N/cm	75 oz/in	15	min	Polycarbonate (PC)
6.6 N/cm	60 oz/in	15	min	ABS
2.2 N/cm	20 oz/in	15	min	Polypropylene (PP)
16.4 N/cm	150 oz/in	72	hr	Stainless Steel
10.4 N/cm	95 oz/in	72	hr	Polycarbonate (PC)
8.8 N/cm	80 oz/in	72	hr	ABS
2.7 N/cm	25 oz/in	72	hr	Polypropylene (PP)

Property: 180° Peel Adhesion Method: ASTM D3330

Temp C: 22C Temp F: 72F

Environmental Condition: 52%RH Backing: Aluminum Foil notes: 12 in/min (300 mm/min)

#### **Available Sizes**

Property	Values		Attribute Modifier
Note	Subject to Minimum Order Requirements		
Maximum Available Width	54 in		
Normal Slitting Tolerance	± 0.8 mm	± 1/32 in	
Core Size	76.2 mm	3 in	ID

Maximum Length		Width
132 m	144 yd	1/4 in to 1 in widths
329 m	360 yd	1 in to 54 in

Property: Maximum Length

## **Electrical and Thermal Properties**

Breakdown Voltage: 7600 V

#### **Environmental Resistance**

Humidity Resistance: High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for 7 days at 90°F (32°C) and 90% relative humidity.

UV Resistance: When properly applied, nameplates and decorative trim parts are not adversely affected by exposure.

Water Resistance: Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength is maintained. Temperature Cycling Resistance: High bond strength is maintained after cycling four times through:

- 4 hours at 158°F (70°C)
- 4 hours at -20°F (-29°C)
- 4 hours at 73°F (22°C)

Chemical Resistance: When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids, and alkalis.

## **Handling/Application Information**

## **Application Ideas**

- Graphic overlays
- Nameplates
- Appliques
- Decorative Trim
- Thermal and sound damping applications in the electronics and appliance industry.
- Attachment to plastics, (ABS, PC).

## Handling/Application Information (continued)

## **Application Techniques**

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength. To obtain optimum adhesion, the bonding surfaces must be

clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane.\*

\*Note: Carefully read and follow the manufacturer's precautions and directions for use when using solvents. Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

## Storage and Shelf Life

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

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

#### **Trademarks**

3M is a trademark of 3M Company.

#### References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Double-Coated-Tape-92015/?N=5002385+3294280783&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/? gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=92015

#### **ISO Statement**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

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