Double Coated Tape with Adhesive 420 94210, 94215, 94220

Product Data Sheet

10. February 2011
Supersedes: New

Product Description

3M™ Double Coated Tapes with 3M™ Adhesive 420 are high tack film tapes that feature a polyester film carrier for dimensional stability and improved handling with ease of die cutting and laminating. The high tack acrylic 3M adhesive 420 provides both high performance at a wide temperature range and excellent adhesion to many plastics.

Key Features

- A 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 420 provides good temperature and chemical resistance and withstands tough application environments.
- 3M™ Adhesive 420 provides good shock resistance when dropped at various temperatures.
- 3M™ Adhesive 420 provides good adhesion to both HSE and LSE substrates.

Construction

Product Number	Faceside Adhesive Thickness	Carrier Type Thickness	Backside Adhesive Thickness	Liner Colour, Type, Thickness	Total Thickness without liner
94210	0,044 mm	Clear PET 0,012 mm	0,044 mm	Tan 94 g/qm, Polycoated paper, 0,11 mm	0,100 mm
94215	0,069 mm		0,069 mm		0,150 mm
94220	0,094 mm		0,094 mm		0,200 mm

Faceside adhesive is exposed when the roll is unwound.
Backside adhesive is exposed when the liner is removed.
The adhesive thickness is based on calculation from an adhesive density of 1,012 g/cm^3.

Performance Characteristics

Product Number		94210	94215	94220
Breakdown voltage			5500 Volts	7400 Volts
Dielectric Strength			35433 Volts / mm	
Adhesion 15 min. dwell at RT, modified ASTM D-3330, 180° peel with 0,05 mm aluminium foil	Stainless Steel Polycarbonate ABS Polypropylene	4,0 N/cm 5,0 N/cm 4,1 N/cm 2,6 N/cm	4,8 N/cm 6,3 N/cm 5,4 N/cm 3,1 N/cm	7,3 N/cm 8,0 N/cm 7,0 N/cm 4,7 N/cm
Adhesion 72 h dwell at RT, modified ASTM D-3330, 180° peel with 0,05 mm aluminium foil	Stainless Steel Polycarbonate ABS Polypropylene	5,5 N/cm 6,3 N/cm 5,4 N/cm 3,1 N/cm	7,4 N/cm 7,9 N/cm 7,3 N/cm 4,0 N/cm	9,3 N/cm 8,8 N/cm 8,1 N/cm 5,1 N/cm
Shear strength at RT. Modified ASTM D-3654, 25,4 mm square sample size, 1000 g.	10 000 minutes			
Shear strength at 70°C. Modified ASTM D-3654, 25,4 mm square sample size, 500 g.	10 000 minutes			

Temperature Resistance

Long Term (days, weeks): 121°C
Short Term (minutes, hours): 149°C

Humidity Resistance

No adverse effect after exposure of bond to 100% relative humidity at 38°C.

U.V. Resistance

Adhesive is resistant to oxidation and ozone when exposed to air or ultraviolet light.

Environmental Performpance

No significant reduction in bond strength after exposure for 7 days at 32°C and 90% relative humidity.

No significant reduction in bond strength after 100 h immersion in water at room temperature.

No significant reduction in bond strength after 4 cycles of
(4 h at 70°C, 4 h at -29°C, 4 h at 22°C).

No significant reduction in bond strength after exposure to oil, mild acids and alkalis.

Storage

Store at 21°C and 50 % relative humidity.

Shelf Life

12 months from date of dispatch by 3M when stored in the original carton at 21°C & 50 % Relative Humidity

Precautionary Information

Refer to product label and Material Safety Data Sheet for health and safety information before using the product.
For information please contact your local 3M Office.
www.3M.com

For Additional Information	To request additional product information or to arrange for sales assistance, call…… Address correspondence to: 3M
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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications.
This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

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