

3M

Low VOC Tapes

98010LVC • 99015LVC

Technical Data

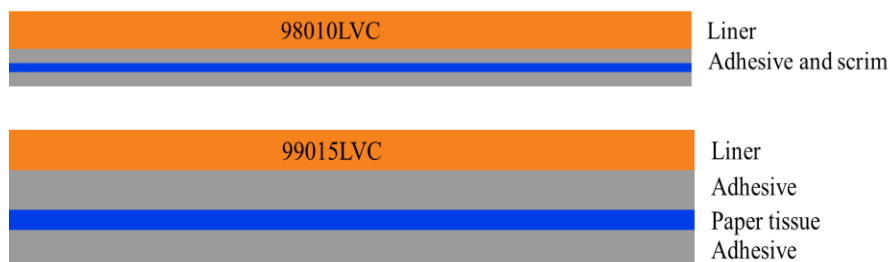
September 2017

Product Description

3M™ Low VOC Scrim Reinforced Adhesive Transfer Tape 98010LVC and 3M™ Low VOC Double Coated Tissue Tape 99015LVC are commonly used foam substrates, such as PU Ester and EPDM, as well as high surface energy (HSE) and low surface energy (LSE) substrates. The pure acrylic adhesive on both thin bonding tapes is designed to be low fog and low emission to meet the VOC requirements set forth in the JAMA and VDA278 test methods used by Automotive OEM's and tier suppliers.

3M™ Low VOC Scrim Reinforced Adhesive Transfer Tape 98010LVC is a 3.9 mil (0.10 mm) low VOC scrim reinforced transfer tape that provides good dimensional stability for large area lamination. 3M™ Low VOC Double Coated Tissue Tape 99015LVC is a 5.9 mil (0.15 mm) low VOC double coated tape with tissue carrier for ease of handling during lamination and excellent die-cutting characteristics.

Construction Information



Product	Adhesive Caliper mils (mm)	Liner Type	Liner Thickness mils (mm)	Liner Color and Print
98010LVC	3.9 mils (0.10 mm)	58# Densified Kraft	3.2 mils (0.08 mm)	
99015LVC	5.9 mils (0.15 mm)	58# Densified Kraft	3.2 mils (0.08 mm)	

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Product
Testing

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

JAMA Low VOC Results Tested by: SGS Institut Fresenius GmbH

Substance	98010LVC Measured VOC (µg/specimen)	99015LVC Measured VOC (µg/specimen)	VOC Targets (µg/specimen)
Formaldehyde	0.12	0.08	<0.3
Acetaldehyde	0.04	0.04	<0.3
Toluene	0.08	0.05	<0.3
Ethylbenzene	<0.04	<0.04	<0.3
Xylene (o-,m-,p-)	<0.04	<0.04	<0.7
Styrene	<0.04	<0.04	<0.3
Tetradecane	<0.04	<0.04	Report
Di-n-butyl phthalate	<0.04	<0.04	Report
Di-2-ethylhexyl phthalate	<0.04	<0.04	Report
Benzene	N/A	N/A	N/A
Acrolein	N/A	N/A	N/A

Test method:

Sample Size: 100mm×100mm

Heating condition: 149°F (65°C) for 2 hours

Gas trapping volume: 4L with Tedlar bag (10L)

Absorption pipe: Tenax-TA (for volatile carbon oxide), DNPH cartridge (for aldehydes)

Absorb air in Tedlar bag with each absorption pipe after heating and measure with gas chromatograph mass spectrometer or high speed liquid chromatography

VDA 278 Test Results Tested by: SGS Institut Fresenius GmbH

	98010LVC	99015LVC
Test Parameter	Measured value (µg/g)	
VOC	16	18
	15	13
FOG	89	110

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Typical
Physical
Properties and
Performance
Characteristics

- I. Adhesion Peel: ASTM D-3330 (Modified: 2 mil aluminum foil backer)
Peel Speed = 12 ipm (300 mm/min)

a. Metal (Stainless Steel)

Product	20 minute dwell		72 hour dwell @ 158°F/70°C	
	90° Peel	180° Peel	90° Peel	180° Peel
98010LVC	40 oz/in 11 N/25 mm	80 oz/in 22 N/25 mm	106 oz/in 29 N/25 mm	79 oz/in 22 N/25 mm
99015LVC	55 oz/in 15 N/25 mm	121 oz/in 34 N/25 mm	129 oz/in 36 N/25 mm	112 oz/in 31 N/25 mm

b. Polypropylene

Product	20 minute dwell		72 hour dwell @ 158°F/70°C	
	90° Peel	180° Peel	90° Peel	180° Peel
98010LVC	18 oz/in 5 N/25 mm	17 oz/in 4 N/25 mm	18 oz/in 5 N/25 mm	16 oz/in 4 N/25 mm
99015LVC	24 oz/in 7 N/25 mm	24 oz/in 7 N/25 mm	19 oz/in 5 N/25 mm	25 oz/in 7 N/25 mm

c. ABS

Product	20 minute dwell		72 hour dwell @ 158°F/70°C	
	90° Peel	180° Peel	90° Peel	180° Peel
98010LVC	14 oz/in 4 N/25 mm	35 oz/in 10 N/25 mm	49 oz/in 14 N/25 mm	46 oz/in 13 N/25 mm
99015LVC	18 oz/in 5 N/25 mm	124 oz/in 34 N/25 mm	67 oz/in 19 N/25 mm	126 oz/in 35 N/25 mm

d. Polycarbonate

Product	20 minute dwell		72 hour dwell @ 158°F / 70°C	
	90° Peel	180° Peel	90° Peel	180° Peel
98010LVC	59 oz/in 16 N/25 mm	94 oz/in 26 N/25 mm	56 oz/in 16 N/25 mm	91 oz/in 25 N/25 mm
99015LVC	87 oz/in 24 N/25 mm	128 oz/in 36 N/25 mm	42 oz/in 12 N/25 mm	128 oz/in 36 N/25 mm

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II. Static Shear Strength (minutes), ASTM D-3654

Size: 1" x 1"

Weight: 500 grams

Dwell 24hr @ room temp (tested at 70°C/158°F)		
	98010LVC	99015LVC
SS	10,000	10,000

III. Fogging (Photometric method)

The effect of fogging condensate on the glass plate is determined by measuring the 60° specular gloss. The 60° specular gloss for the same glass plate that is free from fogging condensate and carefully cleaned before the test is used as a reference value. The higher value indicates less fogging.

Testing Results				
98010LVC		99015LVC		
	1 hour	16 hours	1 hour	16 hours
SAEJ1756	92%	94%	97%	98%

Temperature Resistance

Long term (days, weeks)	Short term (minutes, hours)
194°F/90°C	250°F/120°C

Application Ideas

- Automotive interior bonding
- Door trim and door bolster attachment
- Foam, flock and felt for BSR applications
- Gaskets and seals
- Headliner component and shade attachment
- Acoustic/Thinsulate™ attachment

Master Width

Product	Master Width Sizes
98010LVC	1000mm, 1372mm, 1500mm
99015LVC	1000mm, 1372mm, 1500mm

More sizes may be available. Please call 800-362-3550 or talk to your local 3M representative for more information.

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Storage	It is suggested that products are stored at room temperature conditions of 70°F (21°C) and 50% relative humidity. Out of direct sunlight.
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Shelf Life	If stored properly, product retains its performance and properties for 18 months from date of shipment.
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ISO 9001

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



Industrial Adhesives & Tapes Division
Converter Markets
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-223-7427 651-778-4244 (fax)
www.3M.com/converter

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