3M Cushion-Mount[™] Plus Tapes with Easy Mount Adhesive

E1815, E1820 E1715, E1720 E1515, E1520 E1015, E1020, E1040, E1060 E1315, E1320 E1915, E1920, E1920S E1215, E1220, E1115, E1120

Technical Data	June, 2008
Product Description	3M TM Cushion-Mount TM Plus Tapes with Easy Mount Adhesive are designed for mounting flexographic print plates to cylinders or sleeves. This family of foam
	mounting tapes provides excellent print quality for process, combination, and solid printing.
Features	• Offers a complete range of foam densities providing excellent print quality from process to combination to solid printing.
	• Consistent caliper control allows the printer to use multiple foam densities on a print job to optimize print quality.
	• Use the 3M proprietary Easy Mount liner, creating micro-channels in both adhesive surfaces. The crosshatched pattern creates a continuous and permanent network of micro-channels in the adhesive, allowing air to escape from between the tape and cylinder/sleeve and between the tape and plate.
	• The adhesive on the linered side (plate side) of the tape is designed for mounting of photopolymer plates, excellent holding power on-press and clean plate removal when demounting.
	• The adhesive on the non-linered side (cylinder side) of the tape is designed for mounting to flexographic printing cylinders or sleeves, providing easy application at mounting and clean removability when demounting.

$\begin{array}{l} {\bf 3M}^{{}^{\scriptscriptstyle \mbox{\tiny M}}} \ {\bf Cushion-Mount}^{{}^{\scriptscriptstyle \mbox{\tiny M}}} \ {\bf Plus \ Tapes \ with \ Easy \ Mount \ Adhesive} \\ {\rm E1815} \bullet {\rm E1820} \bullet {\rm E1715} \bullet {\rm E1720} \bullet {\rm E1515} \bullet {\rm E1520} \bullet {\rm E1015} \bullet {\rm E1020} \bullet {\rm E1040} \\ {\rm E1060} \bullet {\rm E1315} \bullet {\rm E1320} \bullet {\rm E1915} \bullet {\rm E1920} \bullet {\rm E1920S} \bullet {\rm E1215} \bullet {\rm E1220} \bullet {\rm E1115} \bullet {\rm E1120} \end{array}$

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

		3M™ Cushion-Mount™ Plus Firm Combination Printing Tapes		3M [™] Cushion-Mount [™] Plus Medium Firm Combination Printing Tapes		3M™ Cushion-Mount™ Plus Medium Combination Printing Tapes	
Product		E1815	E1820	E1715	E1720	E1515	E1520
Adhesive		Differential Acrylate		Differential Acrylate		Differential Acrylate	
Polyethylene Carrier		Firm Blue Foam		Medium Firm Teal Foam		Medium Purple Foam	
Type of Printing		Combination of solid and line with minimal tone reproduction		Combination of solid and line with tone reproduction and fine reverses		Combination of solid and line with tone reproduction and fine reverses	
Application Thickness	in (mm)	0.015 (0.381)	0.020 (0.508)	0.015 (0.381)	0.020 (0.508)	0.015 (0.381)	0.020 (0.508)
Thickness							
Таре	in	0.017	0.022	0.017	0.022	0.017	0.022
	(mm)	(0.432)	(0.559)	(0.432)	(0.559)	(0.432)	(0.559)
Film Liner	in (mm)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)
Lot to Lot Tolerance	in (mm)	±0.0015 (±0.038)	±0.0015 (±0.038)	±0.0015 (±0.038)	±0.0015 (±0.038)	±0.0015 (±0.038)	±0.0015 (±0.038)
Typical Application Area Caliper Variation	in (mm)	±0.0004 (±0.010)	±0.0004 (±0.010)	±0.0004 (±0.010)	±0.0004 (±0.010)	±0.0004 (±0.010)	±0.0004 (±0.010)
Roll Length	yd (m)	25 (22.9)	25 (22.9)	25 (22.9)	25 (22.9)	25 (22.9)	25 (22.9)
Maximum Width	in	54	54	54	54	54	54
	(mm)	(1371.6)	(1371.6)	(1371.6)	(1371.6)	(1371.6)	(1371.6)
Minimum Width	in (mm)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)
Slitting Tolerance	in (mm)	±1/32 (±0.794)	±1/32 (±0.794)	±1/32 (±0.794)	±1/32 (±0.794)	±1/32 (±0.794)	±1/32 (±0.794)
Density	lb/ft ³ (kg/m ³)	32 (512)	32 (512)	30 (480)	30 (480)	29 (465)	29 (465)
Compression Deflection							
10% Compression	lb/in² (kPa)	35 (241)	35 (241)	30 (207)	30 (207)	26 (180)	26 (180)
25% Compression	lb/in² (kPa)	60 (414)	60 (414)	50 (345)	50 (345)	40 (276)	40 (276)
Durometer ASTM-D2240 Shore A		72	72	68	68	67	67
Peel Adhesion (Modified AST	TM-D3330)						
Non-linered side - Stainless Steel	oz/in (N/100mm)	55 (60)	55 (60)	55 (60)	55 (60)	55 (60)	55 (60)
Non-linered side - Composite Sleeve	oz/in (N/100mm)	65 (71)	65 (71)	65 (71)	65 (71)	65 (71)	65 (71)
Non-linered side - Polvester	oz/in (N/100mm)	68 (75)	68 (75)	68 (75)	68 (75)	68 (75)	68 (75)
Non-linered side - Urethane - A	oz/in	70	70	70	70	70	70
Non-linered side -	(N/100mm) oz/in	(77) 60 (22)	(77) 60	(77) 55 (22)	(77) 55	(77) 55 (22)	(77) 55 (22)
Urethane - B	(N/100mm)	(66)	(66)	(60)	(60)	(60)	(60)
Peel Adhesion (Modified AST Linered side -	oz/in	25	25	25	25	25	25
Photopolymer	02/In (N/100mm)	25 (28)	25 (28)	25 (28)	25 (28)	25 (28)	25 (28)
Solvent Resistance		Europe II. A	E	Europe II. A	Europe to a	Europhic (Europe II. A
Water		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alkanes		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alcohols Acetates		Good Fair	Good Fair	Good Fair	Good Fair	Good Fair	Good Fair
Heat Resistance	°F	120	120	120	120	120	120
	(°C)	(49)	(49)	(49)	(49)	(49)	(49)

Typical Physical PropertiesNote:The following technical information and data should be considered representative
or typical only and should not be used for specification purposes.Characteristics

		3M™ Cushion-Mount™ Plus Standard Combination Printing Tapes		3M™ Cushion-Mount™ Plus Standard Combination Printing Tapes		3M™ Cushion-Mount™ Plus Medium Soft Process Printing Tapes	
Product		E1015	E1020	E1040	E1060	E1315	E1320
Adhesive		Differential Acrylate		Differential Acrylate		Differential Acrylate	
Polyethylene Carrier		Standard White Foam		Standard White Foam		Medium Soft Yellow Foam	
Type of Printing		Combination of solids and		Combination of solids and		Combination of solids and	
		tone reproduction where		tone reproduction where		tone reproduction where	
		solids and process are		solids and process are		process printing is	
		equally important		equally important		important	
Application Thickness	in	0.015	0.020	0.040	0.060	0.015	0.020
	(mm)	(0.381)	(0.508)	(1.016)	(1.524)	(0.381)	(0.508)
Thickness							
Таре	in (mm)	0.017 (0.432)	0.022 (0.559)	0.042 (1.017)	0.062 (1.525)	0.017 (0.432)	0.022 (0.559)
Film Liner	in (mm)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)
Lot to Lot Tolerance	in	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015
	(mm)	(±0.038)	(±0.038)	(±0.038)	(±0.038)	(±0.038)	(±0.038)
Typical Application Area	in	±0.0004	±0.0004	±0.0004	±0.0004	±0.0004	±0.0004
Caliper Variation	(mm)	(±0.010)	(±0.010)	(±0.010)	(±0.010)	(±0.010)	(±0.010)
Roll Length	yd	25	25	50 ft.	50 ft.	25	25
	(m)	(22.9)	(22.9)	(15.4)	(15.4)	(22.9)	(22.9)
Maximum Width	in	54	54	54	54	54	54
	(mm)	(1371.6)	(1371.6)	(1371.6)	(1371.6)	(1371.6)	(1371.6)
Minimum Width	in (mm)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)
Slitting Tolerance	in	±1/32	±1/32	±1/32	±1/32	±1/32	±1/32
	(mm)	(±0.794)	(±0.794)	(±0.794)	(±0.794)	(±0.794)	(±0.794)
Density	lb/ft ³	28	28	28	28	27	27
	(kg/m ³)	(450)	(450)	(450)	(450)	(433)	(433)
Compression Deflection	()						
10% Compression	lb/in²	15	15	15	15	12	12
	(kPa)	(104)	(104)	(104)	(104)	(49)	(49)
25% Compression	lb/in²	30	30	25	25	25	25
	(kPa)	(207)	(207)	(172)	(172)	(172)	(172)
Durometer ASTM-D2240 Shore A		65	65	40	38	63	63
Peel Adhesion (Modified ASTM-D3330)							
Non-linered side -	oz/in	55	55	55	65	55	55
Stainless Steel	(N/100mm)	(60)	(60)	(60)	(71)	(60)	(60)
Non-linered side -	oz/in	65	65	58	65	65	65
Composite Sleeve	(N/100mm)	(71)	(71)	(63)	(71)	(71)	(71)
Non-linered side -	oz/in	60	60	55	65	60	60
Polyester	(N/100mm)	(66)	(66)	(60)	(71)	(66)	(66)
Non-linered side -	oz/in	80	80	70	80	80	80
Urethane - A	(N/100mm)	(88)	(88)	(77)	(88)	(88)	(88)
Non-linered side -	oz/in	65	65	50	55	65	65
Urethane - B	(N/100mm)	(71)	(71)	(55)	(60)	(71)	(71)
Peel Adhesion (Modified ASTM-D3330)							
Linered side -	oz/in	25	25	18	12	25	25
Photopolymer	(N/100mm)	(28)	(28)	(20)	(14)	(28)	(28)
Solvent Resistance							
Water		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alkanes		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alcohols		Good	Good	Good	Good	Good	Good
Acetates	~_	Fair	Fair	Fair	Fair	Fair	Fair
Heat Resistance	°F	120	120	120	120	120	120
	(°C)	(49)	(49)	(49)	(49)	(49)	(49)

Typical Physical PropertiesNote:The following technical information and data should be considered representative
or typical only and should not be used for specification purposes.Characteristics

		3M™ Cushion-Mount™ Plus Light Medium Combination Printing Tapes		3M™ Cushion-Mount™ Plus Light Medium Combination Printing Tape	3M™ Cushion-Mount™ Plus Light Combination Printing Tapes	
Product		E1915	E1920	E1920S	E1215	E1220
Adhesive		Differential Acrylate		Differential Acrylate	Differential Acrylate	
Polyethylene Carrier		Light Medium Pink Foam		Light Medium Pink Foam	Light Orange	
Type of Printing		Combination of solids and tone reproduction where process printing is important		Combination of solids and tone reproduction where process printing is important	Combination of solids and tone reproduction where process printing is important	
Application Thickness	in (mm)	0.015 (0.381)	0.020 (0.508)	0.020 (0.508)	0.015 (0.381)	0.020 (0.508)
Thickness						
Таре	in	0.017	0.022	0.022	0.017	0.022
	(mm)	(0.432)	(0.559)	(0.559)	(0.432)	(0.559)
Film Liner	in (mm)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)	0.0045 (0.114)
Lot to Lot Tolerance	in	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015
	(mm)	(±0.038)	(±0.038)	(±0.038)	(±0.038)	(±0.038)
Typical Application Area	ín	±0.0004	±0.0004	±0.0004	±0.0004	±0.0004
Caliper Variation	(mm)	(±0.010)	(±0.010)	(±0.010)	(±0.010)	(±0.010)
Roll Length	yd (m)	25	25	25	25	25
Maximum Width	(m) in	(22.9) 54	(22.9)	(22.9)	(22.9)	(22.9)
	(mm)	(1371.6)	(1371.6)	(1371.6)	(1371.6)	(1371.6)
Minimum Width	in (mm)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)	2 (50.8)
Slitting Tolerance	in	±1/32	±1/32	±1/32	±1/32	±1/32
enning relevance	(mm)	(±0.794)	(±0.794)	(±0.794)	(±0.794)	(±0.794)
Density	lb/ft ³ (kg/m ³)	26 (416)	26 (416)	26 (416)	25 (400)	25 (400)
Compression Deflection	,	. ,				
10% Compression	lb/in² (kPa)	10 (70)	10 (70)	10 (70)	8 (56)	8 (56)
25% Compression	lb/in ²	20	20	20	17	17
•	(kPa)	(138)	(138)	(138)	(104)	(104)
Durometer ASTM-D2240 Shore A		60	60	60	58	58
Peel Adhesion (Modified AS	TM-D3330)					
Non-linered side - Stainless Steel	oz/in (N/100mm)	30 (33)	30 (33)	55 (60)	30 (33)	30 (33)
Non-linered side -	oz/in	28	28	65	28	28
Composite Sleeve	(N/100mm)	(31)	(31)	(71)	(31)	(31)
Non-linered side - Polyester	oz/in (N/100mm)	35 (39)	35 (39)	50 (55)	35 (39)	35 (39)
Non-linered side - Urethane - A	oz/in (N/100mm)	45 (50)	45 (50)	75 (82)	50 (55)	50 (55)
Non-linered side - Urethane - B	oz/in (N/100mm)	35 (39)	35 (39)	70 (77)	35 (39)	35 (39)
Peel Adhesion (Modified AS	(00)	(00)		(30)	(33)	
Linered side -	oz/in	25	25	25	25	25
Photopolymer	(N/100mm)	(28)	(28)	(28)	(28)	(28)
Solvent Resistance		_				
Water		Excellent	Excellent	Excellent	Excellent	Excellent
Alkanes		Excellent	Excellent	Excellent	Excellent	Excellent
Alcohols		Good	Good	Good	Good	Good
Acetates	o r	Fair	Fair	Fair	Fair	Fair
Heat Resistance	°F (°C)	120 (49)	120 (49)	120 (49)	120 (49)	120 (49)

Typical Physical PropertiesNote:The following technical information and data should be considered representative
or typical only and should not be used for specification purposes.Characteristics

	3M™ Cushion-Mount™ Plus Process Printing Tapes			
Product		E1115	E1120	
Adhesive		-	-	
Polyethylene Carrier	Differential Acrylate Soft Tan Foam			
Type of Printing		Tone reproduction where where process printing is important		
Application Thickness	in (mm)	0.015 (0.381)	0.020 (0.508)	
Thickness				
Таре	in	0.017	0.022	
	(mm)	(0.432)	(0.559)	
Film Liner	in (mm)	0.0045 (0.114)	0.0045 (0.114)	
Lot to Lot Tolerance	in (mm)	±0.0015 (±0.038)	±0.0015 (±0.038)	
Typical Application Area	in	±0.0004	±0.0004	
Caliper Variation	(mm)	(±0.010)	(±0.010)	
Roll Length	yd (m)	25 (22.9)	25 (22.9)	
Maximum Width	in (mm)	54 (1371.6)	54 (1371.6)	
Minimum Width	in (mm)	2 (50.8)	2 (50.8)	
Slitting Tolerance	in	±1/32	±1/32	
Density	(mm) Ib/ft³	(±0.794) 24	(±0.794) 24	
	(kg/m³)	(384)	(384)	
Compression Deflection	11- /: 2		r.	
10% Compression	lb/in² (kPa)	5 (35)	5 (35)	
25% Compression	lb/in² (kPa)	10 (70)	10 (70)	
Durometer ASTM-D2240 Shore A		55	55	
Peel Adhesion (Modified AS	FM-D3330)			
Non-linered side -	oz/in	30	30	
Stainless Steel	(N/100mm)	(33)	(33)	
Non-linered side -	oz/in	28	28	
Composite Sleeve	(N/100mm)	(31)	(31)	
Non-linered side - Polyester	oz/in (N/100mm)	35 (39)	35 (39)	
Non-linered side - Urethane - A	oz/in (N/100mm)	50 (55)	50 (55)	
Non-linered side - Urethane - B	oz/in (N/100mm)	35 (39)	35 (39)	
Peel Adhesion (Modified AS	· /			
Linered side - Photopolymer	oz/in (N/100mm)	25 (28)	25 (28)	
Solvent Resistance	()	()	()	
Water		Excellent	Excellent	
Alkanes		Excellent	Excellent	
Alcohols		Good	Good	
Acetates		Fair	Fair	
Heat Resistance	°F (°C)	120 (49)	120 (49)	

Storage	Store under normal conditions of 60° to 80° F (16° to 27° C) and 40 to 60% relative humidity in the original carton.
Shelf Life	To obtain best performance, use this product within one year from date of manufacture.
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Industrial Adhesives and Tapes Division

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