



3M China Limited  
222 Tian Lin Road, Shanghai,  
China

## Certificate of Analysis

Date certificate is prepared: 2023.12.15

The 3M product listed below was produced in accordance with standard manufacturing processes for the product in effect at the time of manufacture and is certified to meet the specifications displayed below.

3M SKU	Product Description				Roll Q'ty				
506R2380A1015073	Encapsulant 9110T 1010mm*150m*0.45mm				300				
Shelf Life	Storage Condition								
6 Months	Shall be stored in door with temperature 0°C-30°C and relative humidity below 60%								
Lot:	C0C06H621107C301-30;C0C06H621108C331-35;C0C06H622108C336-39;C0C07H612108C301-14,16-53; C0C07H612608C301;C0C06H622608C301;C0C07H611108C354-62;C0C08H711108C301-48; C0C08H711109C349-61;C0C08H712109C362-67;C0C08H612109C301-67; C0C08H611109C368-71;C0C09H711109C301-60								
Shipping Date:	2023.12.15	Op:	ZhuYumei	Inspect Date:	2023.12.09				
Test Item	Test Method	Low Limit	Up Limit	Unit	Test Result				
					Min	Max	Avg	Judge	
Appearance	Encap00001	Uniform		N/A	OK	OK	OK	OK	
Foreign material	Encap00001	<0.8		mm <sup>2</sup>	OK	OK	OK	OK	
Wrinkle;Bubble	Encap00001	Not accept		N/A	OK	OK	OK	OK	
Surfaceness (Ra)	Rubber Roller	Encap00002	-	-	µm	14.821	19.016	16.919	OK
	Steel Roller	Encap00002	-	-	µm	28.432	38.553	33.493	OK
Thickness	Encap00003	0.43	0.63	mm	0.51	0.55	0.53	OK	
Width	1010	Encap00004	Target+0	Target+5	mm	1012.0	1014.0	1013.0	OK
Length	150	Encap00004	Target+0	Target+0.5	m	150.3	150.5	150.4	OK
Peeling Force to Glass	Encap00005	70	-	N/cm	105.12	124.77	114.95	OK	
Peeling Force to Backsheet	Encap00005	70	-	N/cm	109.42	123.44	116.43	OK	
Tensile strength	Encap00005	16	-	MPa	28.32	30.52	29.42	OK	
Elongation at break	Encap00004	550	-	%	1050.46	1103.57	1077.02	OK	
Crosslink Rate	Encap00006	75	95	%	90.17	90.61	90.39	OK	
MD Shrinkage	Encap00007	-	3	%	1.50	2.00	1.75	OK	
TD Shrinkage	Encap00007	-	1	%	-0.50	-0.30	-0.40	OK	
Transmittance ( UV-Vis )	280nm-380nm	Encap00008	80	-	%	89.79	89.79	89.79	OK
	380nm-1100nm	Encap00008	90	-	%	91.80	91.80	91.80	OK
Volume Resistivity	Encap00009	1.0*10 <sup>15</sup>	-	Ω.cm			7.18*10 <sup>15</sup>	OK	
PCT Aging	Peeling Force	Encap00010	40	-	N/cm			60.65	OK
	Yellowing(Δb*)	Encap00010	-	2.0	-			0.40	OK

Please contact your 3M Customer Service Representative if you have any questions.

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3M SKU	Product Description				Roll Q'ty				
50512380A1015073	Encapsulant 9120B 1010mm*150m*0.45mm				225				
Shelf Life	Storage Condition								
6 Months	Shall be stored in door with temperature 0°C-30°C and relative humidity below 60%								
Lot:	50C09H612110C301-47;53C10H612110C301-09;53C10H611110C310-73; 53C10H611111C374-75;52C10H622111C301-70;52C10H621111C371-77;52C11H611111C301-26								
Shipping Date:	2023.12.15	Op:	GaoQian	Inspect Date:	2023.12.11				
Test Item	Test Method	Low Limit	Up Limit	Unit	Test Result				
					Min	Max	Avg	Judge	
Appearance	Encap00001	Uniform		N/A	OK	OK	OK	OK	
Foreign material	Encap00001	<0.8		mm <sup>2</sup>	OK	OK	OK	OK	
Wrinkle;Bubble	Encap00001	Not accept		N/A	OK	OK	OK	OK	
Surfaceness (Ra)	Rubber Roller	Encap00002	-	-	µm	15.019	18.432	16.726	OK
	Steel Roller	Encap00002	-	-	µm	27.673	36.594	32.134	OK
Thickness	Encap00003	0.43	0.63	mm	0.52	0.55	0.54	OK	
Width	1010	Encap00004	Target+0	Target+5	mm	1012.0	1014.0	1013.0	OK
Length	150	Encap00004	Target+0	Target+0.5	m	150.3	150.5	150.4	OK
Peeling Force to Glass	Encap00005	70	-	N/cm	102.60	110.75	106.68	OK	
Peeling Force to Backsheet	Encap00005	70	-	N/cm	100.04	108.59	104.32	OK	
Tensile strength	Encap00005	16	-	MPa	26.10	27.93	27.02	OK	
Elongation at break	Encap00004	550	-	%	989.26	1044.67	1016.97	OK	
Crosslink Rate	Encap00006	75	95	%	90.47	90.63	90.55	OK	
MD Shrinkage	Encap00007	-	3	%	2.00	2.00	2.00	OK	
TD Shrinkage	Encap00007	-	1	%	-0.70	-0.50	-0.60	OK	
Transmittance ( UV-Vis )	280nm-380nm	Encap00008	-	25	%	6.80	6.80	6.80	OK
	380nm-1100nm	Encap00008	90	-	%	91.99	91.99	91.99	OK
Volume Resistivity	Encap00009	1.0*10 <sup>15</sup>	-	Ω.cm			7.46*10 <sup>15</sup>	OK	
PCT Aging	Peeling Force	Encap00010	40	-	N/cm			80.07	OK
	Yellowing(Δb*)	Encap00010	-	2.0	-			0.90	OK

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