

Dymo D1 White

Revision 0
26 March 2024

Description

D1 is a one-tape system available in 14 different color combinations and five different widths of 6, 9, 12, 19, and 24mm in 7meter roll lengths.
D1 tapes are made of PET and mainly used for the office, retail, consumer and outdoor applications.

Certifications & Standards Adherence

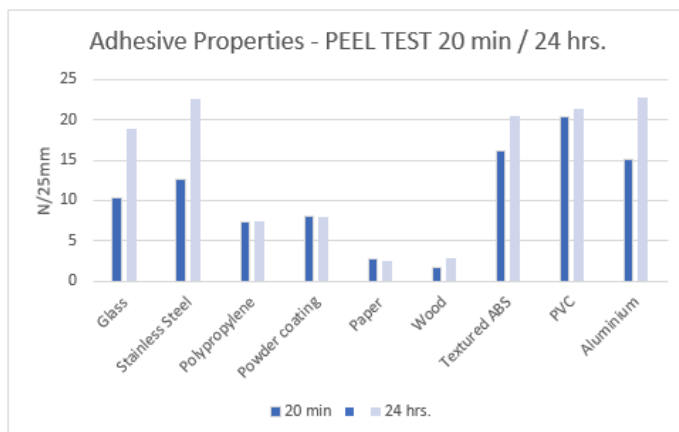
REACH & RoHS compliant: - REACH 1907/2006/EC
- RoHS 2011/65/EC
- RoHS 2015/863/EC Annex II

Physical Adhesive Properties

	Thickness	Test Method
TAPE	137 ± 10% Micron	Micrometer
LINER	55 ± 10% Micron	

Adhesive Properties

Surface (Unit: N/25mm)	Dwell ¹		Test Method
	20 min	24 hrs.	
to glass	10	19	PSTC-1
to stainless steel	13	23	
to polypropylene film	7	7	
to powder coated steel	8	8	
to paper	3	2	
to wood	2	3	
to textured ABS	16	21	
to PVC	20	21	
to aluminium	15	23	



¹ Dwell means the contact time between tape and substrate.

Abrasion Resistance²

Abrasive Object	# of rubs	Result	Test Method
Pencil erasure	30	No visible effect	Crockmeter, 900g weight/arm
Polystyrene pin	30	No visible effect	

Solvent Resistance²

Solvent Object	# of rubs	Result	Test Method
Water	30	No visible effect	Crockmeter, 900g weight/arm
IPA	30	Printing gone	

Temperature Stability

Application Temperatures

	°C	°F
Minimum	10	50

Service Temperatures

	°C	°F
Range from / to	-18/80	-0.4/176

Shelf life of tape

2 years at 5-25°C / 41-77 and 40-85% relative humidity when stored in its original packaging. We are confident that our product will perform well beyond this frame. However, it remains the responsibility of the user to assess the risk of using such product.

UV Light Resistance - Real Life testing

UV light stability of:	Test Method	Duration	Result
Tape	Real life test: 1 year outdoor	12 months	No visible effect

² The printed tapes are subjected to different scratching & solvent sources for a fixed number of cycles with a finger weight of 900g.

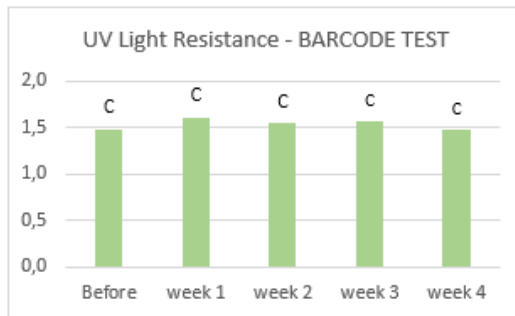
UV Light Resistance - Accelerated testing

UV light stability of:	Test Method	Duration	Result
Tape	4 weeks in accelerated testing, simulating 1 year indoor exposure	4 weeks	No visible effect

1. Barcode testing:

UV light stability of:	Duration	Result	Test Method
Barcode	1 – 4 weeks	Barcode remains readable	UV: Indoor filter $\lambda \geq 320$ nm Barcode scanner: LVS-9510

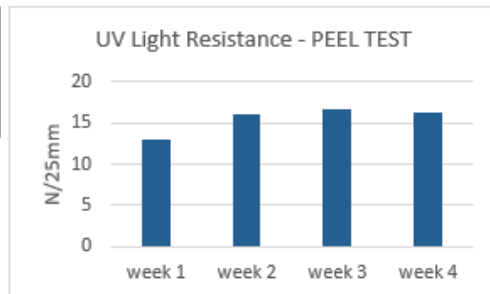
UV Light Resistance - BARCODE TEST					
Before	week 1	week 2	week 3	week 4	
C	C	C	C	C	C



2. Peel testing:

UV light stability of:	Duration	Result	Test Method
Peeling Tape	1 – 4 weeks	Clean removal, no adhesive sticks to test plate.	UV: Indoor filter $\lambda \geq 320$ nm Peeling: PSTC-1

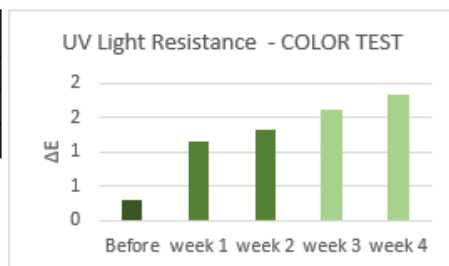
UV Light Resistance - PEEL TEST					
Adhesion to aluminium surface					
Unit:	week 1	week 2	week 3	week 4	
N/25mm	13	16	17	16	



3. Color testing:

UV light stability of:	Duration	Result	Test Method
Color tape	1 – 4 weeks	No visible effects on color (color difference is only observed when measuring)	UV: Indoor filter $\lambda \geq 320$ nm Color test: CM-2600d

UV Light Resistance - COLOR TEST						
Discoloration						
Unit:	Before	week 1	week 2	week 3	week 4	
ΔE	0	1	1	2	2	

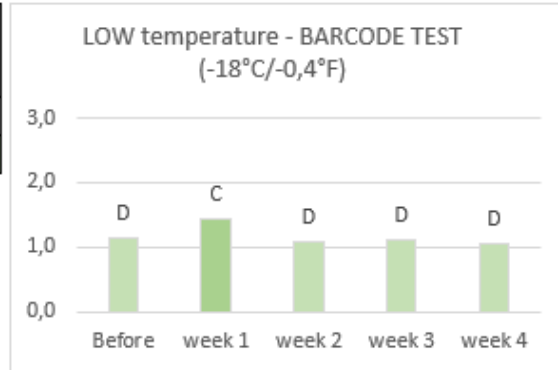


Low temperature testing (-18°C/-0.4°F)

1. Barcode testing:

Low temperature effect on:	Duration	Result	Test Method
Barcode	1 – 4 weeks	Barcode remains readable	Freezer at -18°C/-0.4°F Barcode scanner: LVS-9510

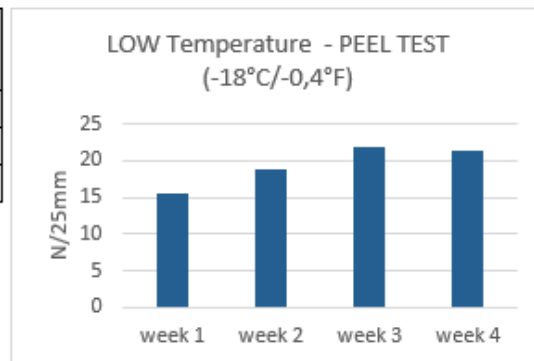
LOW temperature - BARCODE TEST (-18°C/-0,4°F)				
Before	week 1	week 2	week 3	week 4
D	C	D	D	D



2. Peel testing:

Low temperature effect on:	Duration	Result	Test Method
Peeling tape	1 – 4 weeks	Clean removal, no adhesive sticks to test plate.	Freezer at -18°C/-0.4°F Peeling: PSTC-1

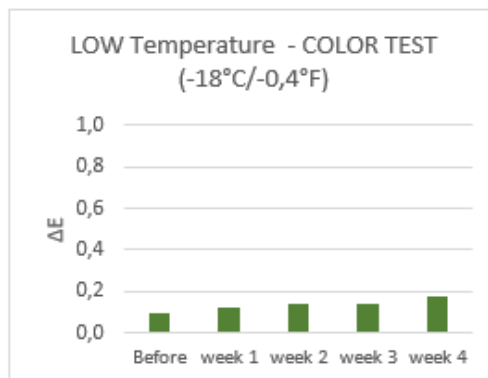
LOW Temperature - PEEL TEST (-18°C/-0,4°F)				
Adhesion to aluminium surface				
Unit:	week 1	week 2	week 3	week 4
N/25mm	16	19	22	21



3. Color testing:

Low temperature effect on:	Duration	Result	Test Method
Color tape	1 – 4 weeks	No visible effects on color	Freezer at -18°C/-0.4°F Color test: CM-2600d

LOW Temperature - COLOR TEST (-18°C/-0,4°F)					
Discoloration					
Unit:	Before	week 1	week 2	week 3	week 4
ΔE	0	0	0	0	0

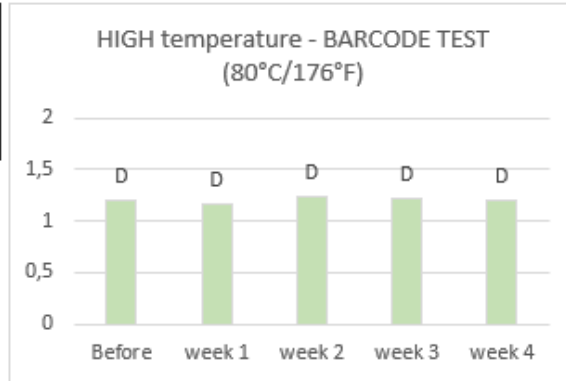


High temperature testing (80°C/176°F)

1. Barcode testing:

High temperature effect on:	Duration	Result	Test Method
Barcode	1 – 4 weeks	Barcode remains readable	Oven at 80°C/176°F Barcode scanner: LVS-9510

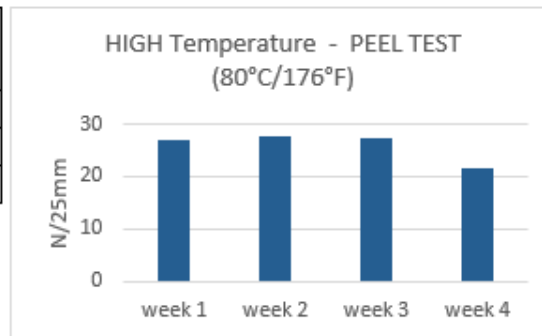
HIGH temperature - BARCODE TEST (80°C/176°F)				
Before	week 1	week 2	week 3	week 4
D	D	D	D	D



2. Peel testing:

High temperature effect on:	Duration	Result	Test Method
Peeling tape	1 – 4 weeks	Clean removal, no adhesive sticks to test plate	Oven at 80°C/176°F Peeling: PSTC-1

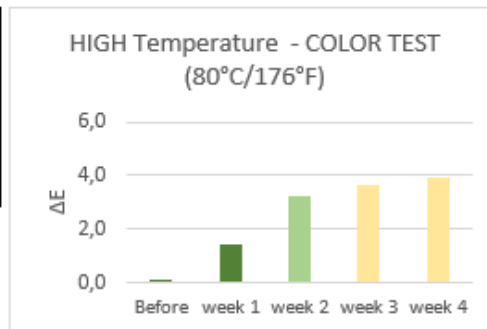
HIGH Temperature - PEEL TEST (80°C/176°F)				
Adhesion to aluminium surface				
Unit:	week 1	week 2	week 3	week 4
N/25mm	27	28	27	22



3. Color testing:

High temperature effect on:	Duration	Result	Test Method
Color tape	1 – 4 weeks	Hardly any visible effect on color (color difference is mainly observed when measuring)	Oven at 80°C/176°F Color test: CM-2600d

HIGH Temperature - COLOR TEST (80°C/176°F)					
Discoloration					
Unit:	Before	week 1	week 2	week 3	week 4
ΔE	0	1	3	4	4

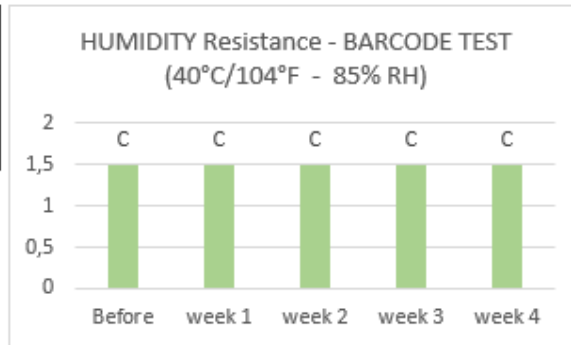


Humidity Resistance

1. Barcode testing:

Humidity effect on:	Duration	Result	Test Method
Barcode	1 – 4 weeks	Barcodes remain readable	Climate chamber at 40°C/104°F, 85% R.H. (on aluminium panel). Barcode scanner: LVS-9510

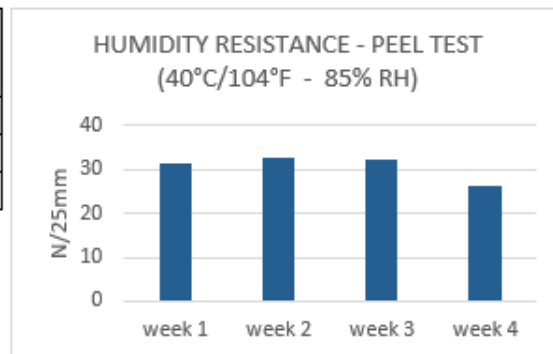
HUMIDITY Resistance - BARCODE TEST (40°C/104°F - 85% RH)				
Before	week 1	week 2	week 3	week 4
C	C	C	C	C



2. Peel testing:

Humidity effect on:	Duration	Result	Test Method
Peeling tape	1 – 4 weeks	Clean removal, no adhesive sticks to test plate	Climate chamber at 40°C/104°F, 85% R.H. (on aluminium panel). Peeling: PSTC-1

HUMIDITY Resistance - PEEL TEST (40°C/104°F - 85% RH)				
Adhesion to aluminium surface				
Unit:	week 1	week 2	week 3	week 4
N/25mm	31	33	32	26



3. Color testing:

Humidity effect on:	Duration	Result	Test Method
Color tape	1 – 4 weeks	No visible effects on color	Climate chamber at 40°C/104°F, 85% R.H. (on aluminium panel). Color test: CM-2600d

HUMIDITY Resistance - COLOR TEST (40°C/104°F - 85RH)					
Discoloration					
Unit:	Before	week 1	week 2	week 3	week 4
ΔE	0	0	0	0	0

