TECHNICAL DATA SHEET

Premium OPP Hot Melt Packaging Tape

Product Code **S31**





PRODUCT COMPOSITION

SPECIFICATIONS	
CODE	S31
DESCRIPTION	Premium OPP Hot Melt Packaging Tape
FEATURES AND BENEFITS	High adhesion to most surfaces Easy unwind Excellent initial tack Cost effective
AREAS OF USE	Carton sealing Suitable on recycled cardboard
COLOUR	Brown / Clear
SIZES AVAILABLE	Brown 24mm x 100m 48mm x 100m Clear 48mm x 100m (36 Rolls / Carton) (36 Rolls / Carton)
SLITTING OPTIONS	Custom slit available on request

PHYSICAL PROPERTIES	
BACKING (LINER)	OPP Film
ADHESIVE TYPE	Hot Melt Rubber
MAXIMUM TENSILE (N/25MM)	107.7
ELONGATION AT BREAK (%)	141.8
TEMPERATURE RESISTANCE (°C)	60
ADHESION TO STAINLESS STEEL (N/25MM)	7
TOTAL THICKNESS (MM)	0.047 (47 Microns)



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The figures above are based off average results from multiple tests, results may vary + or - 5%



PEEL TEST REPORT	
TEST STANDARD	Pomona TM
TEST SPEED	300.000mm/min
GAUGE LENGTH	75.000mm



MAX. FORCE @ PEEL INTERVAL (N)	10.474
MIN. FORCE @ PEEL INTERVAL (N)	8.591
AVG. FORCE @ PEEL INTERVAL (N)	9.287
THICKNESS (MM)	0.048
WIDTH (MM)	25.000
AMBIENT TEMPERATURE	23
AMBIENT HUMIDITY	50

THIS TEST WAS BASED ON THE CLEAR S31 TAPE

Peel Strength is the Average Force in Newtons required to peel off the tape and reported in Newtons/mm The Average force (N) divided by the tape width required to bee N/mm. (4.029N / 24mm = 0.168 N/mm) ASTM requires reporting in N/10mm so multiply N/mm by 10. (4.029N / 24mm x10mm = 1.679 N/10mm) Common reporting is in N/25mm so multiply N/mm by 25. (4.029N / 24mm x 25mm = 4.197 N/25mm) Pomona will report Maximum Peel Force in N/25mm so 5.493N / 24mm x 25mm = 5.723 N/25mm

Note: Peel Strength can be 50% higher due to backing effects - i.e. Backing thickness (Same adhesive, same backing except thickness.

CRITICAL VARIABLES OF THE PEEL TEST - Peel Rate - Peel Angle

- Test Environment (Temperature/Humidity)
 Temperature of the test sample
 Roll down pressure
 Roll down speed
 Roll down number of passes

Time of tape dwell on the substrate before testing
 Adhesive thickness (Peel force increases with increasing thickness)
 Backing thickness, modulus (The effect of plastic energy dissipation in the tape backing) and stretchiness

- Substrate texture, surface energy and cleanliness

Tapes / Gloves / Work Protection 100% New Zealand Owned & Operated



TENSILE TEST REPORT	
TEST STANDARD	Pomona TM
TEST SPEED	125.000mm/min
GAUGE LENGTH	125.000mm



FORCE @ PEAK (N)	98.342
THICKNESS (MM)	0.048
TENSILE STRENGTH N/MM2 (MPA)	81.952
ELONGATION PERCENTAGE @ PEAK (%)	158.532
AREA (MM^2)	1.200
ELONG. @ PEAK (MM)	198.164
WIDTH (MM)	25.000
AMBIENT TEMPERATURE	23
AMBIENT HUMIDITY	50

THIS TEST WAS BASED ON THE CLEAR S31 TAPE

Tensile Strength = Force (N) / Cross sectional Area (mm2) e.g. 86.927 N / 1.104 mm2 = 78.738 N/mm2 = (MPa) Cross sectional area is Width (mm) x Thickness (mm) and must be measured accurately for good results. With width being 24mm it can be reported as N/24mm but this is not a scientific number and just designates the tape width.

Common reporting uses a 25mm tape and is reported as N/25mm. However, the tensile strength is actually N/mm2 (MPa)

Pomona will report the Force at Peak (86.927N) as opposed to Tensile Strength (78.738N/mm2) % elongation = Elongation at Peak (mm) × 100/Gauge Length (mm) e.g. 185.558mm ×100/125mm = 148.446%



CONDITIONS OF USE

For best results apply self-adhesive tapes between 15°C and 25°C in a dry environment. Application surfaces must be dry and free from dust and particles. Do not apply on surfaces treated or contaminated by anti-adhesives. Avoid contact with surfaces containing plasticizers or other chemical agents not compatible with the tape. Care must be taken regarding removability without residue and working conditions of the self-adhesive tape.

TAPE STORAGE

Ideally, store tape between 15°C and 25°C with a maximum relative humidity of 65%. Always store away from heat sources, avoiding exposure to light and if possible keep in the original packaging. When temperatures are lower than 15°C, it is highly recommended to recondition the adhesive tape to the average temperature range (15°C to 25°C) before use.

TAPE SHELF LIFE

Self-adhesive tapes technical features are generally not permanent but remain at their best for approximately 12 months, if stored according to suggested conditions and by avoiding extreme environmental conditions such as quick and sudden temperature changes, exposure to UV light and high levels of humidity.

OTHER INFORMATION

All test methods are based on ASTM standards and Pomona's standardised test methods. The information provided above is based on our experience and tape industry knowledge. It is given in goodwill but is not a guarantee or a warranty. All end-users should ensure for themselves that the product is suitable for their particular application before using. NB: Peak Force Test: based on ASTM 3759/D ASTM 3759/M and Pomona® test methods, Peel Test: based on ASTM D3330 and Pomona® test methods.

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