TECHNICAL DATA SHEET

Fragile OPP Acrylic Message Tape

Product Code **\$36**



Pomona Group Limited

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PRODUCT COMPOSITION

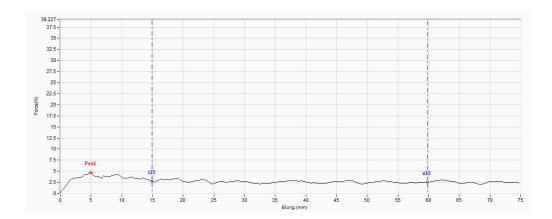
| SPECIFICATIONS | |
|-----------------------|--|
| CODE | S36 |
| DESCRIPTION | Fragile OPP Acrylic Message Tape |
| FEATURES AND BENEFITS | Strong adhesion Bold font Good clarity Strong Sticks to rough & smooth surfaces |
| AREAS OF USE | Carton sealing Carton sealing on recycled cardboard Export goods Air freight Carton identification |
| COLOUR | Orange with Black Print |
| SIZES AVAILABLE | 48mm x 66m (36 Rolls / Carton) |
| SLITTING OPTIONS | Not applicable |

| PHYSICAL PROPERTIES | |
|--------------------------------------|--------------------|
| BACKING (LINER) | OPP Film |
| ADHESIVE TYPE | Acrylic |
| MAXIMUM TENSILE (N/25MM) | 100 |
| ELONGATION AT BREAK (%) | 140 |
| TEMPERATURE RESISTANCE (°C) | 80 |
| ADHESION TO STAINLESS STEEL (N/25MM) | 5.0 |
| TOTAL THICKNESS (MM) | 0.050 (50 Microns) |

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) | 3.472 |
|--------------------------------|--------|
| MIN. FORCE @ PEEL INTERVAL (N) | 2.079 |
| AVG. FORCE @ PEEL INTERVAL (N) | 2.592 |
| THICKNESS (MM) | 0.049 |
| WIDTH (MM) | 25.000 |
| AMBIENT TEMPERATURE | 23 |
| AMBIENT HUMIDITY | 45 |

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 (mm) gives N/mm. (4.029N / 24mm = 0.168 N/mm) ASTM requires reporting in N/10mm so multiply N/mm by 10. ($4.029N / 24mm \times 10mm = 1.679 N/10mm$) Common reporting is in N/25mm so multiply N/mm by 25. ($4.029N / 24mm \times 25mm = 4.197 N/25mm$) Pomona will report Maximum Peel Force in N/25mm so 5.493N / $24mm \times 25mm = 5.723 N/25mm$

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

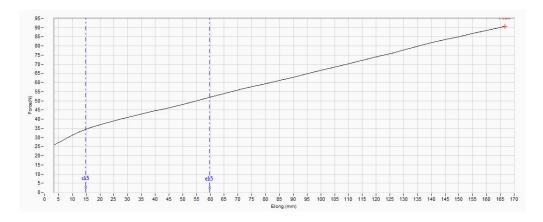
CRITICAL VARIABLES OF THE PEEL TEST- Peel Rate - Peel Angle

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

- Roil 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



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



| FORCE @ PEAK (N) | 90.732 |
|----------------------------------|---------|
| THICKNESS (MM) | 0.049 |
| TENSILE STRENGTH N/MM2 (MPA) | 74.067 |
| ELONGATION PERCENTAGE @ PEAK (%) | 133.384 |
| AREA (MM^2) | 1.225 |
| ELONG. @ PEAK (MM) | 166.730 |
| WIDTH (MM) | 25.000 |
| AMBIENT TEMPERATURE | 23 |
| AMBIENT HUMIDITY | 45 |

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) \times 100/Gauge Length (mm) e.g. 185.558mm \times 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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For further information on **Pomona** or **Selfgard™** please email **sales@pomona.co.nz,** phone **0800 0800 766662** or contact your distributor.