

3-121-17T-R1

Antimicrobial Film

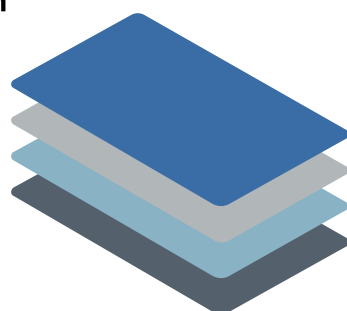
Product Description

3-121-17T-R1 is a 50 micron clear printable polyester material that utilises a removable acrylic adhesive, which can give clean peel on a wide range of surfaces. This product incorporates PC-1000 antimicrobial topcoat which offers excellent protection against microbes and mould. The coating ensures microorganisms that cause contamination and infection, including those responsible for odours and staining are eradicated. The active ingredient used in the topcoat is EPA, EFSA and FDA approved and the coated product formulation conforms to all REACH requirements.

3-121-17T-R1 withstands abrasion, general cleaning agents and handling environments.

Like all removable label stock, 3-121-17T-R1 should be tested according to the customer's specific exposure and substrate combinations in order to ensure it meets clean peel requirements.

Product Construction



- 8µm PC-1000 Antimicrobial Gloss Topcoat
- 50µm Polyester Film
- 20µm Removable Acrylic Adhesive
- 75µm Glassine Liner

Product Applications

CCL Design has created this product for use in a number of applications to help get people back to work, school and into a 'new normality'. 3-121-17T-R1 has the following key features:

- Approved by independent lab to BS EN ISO 22196 global antimicrobial standard
- Effective against a broad range of microorganisms - bacteria, virus - with reduction in microorganism of >99.9% over 24 hours
- Prevents staining from mould and algae
- Tested to ASTM G21 standard for resistance to fungi and can be considered fungicidal with zero growth rate
- Durable to cleaning chemicals and abrasion
- Acts as a complementary measure to routine cleaning by continuously killing microbial contaminants and resisting microbe growth
- Independent laboratory testing confirms that the PC-1000 coating leads to 85% reduction of Influenza A and 75% reduction of Human Coronavirus NL63 viral activity in just 2 hours. Both these viruses are fatty enveloped structures and the results infer that PC-1000 may give similar efficacy against the current coronavirus

3-121-17T-R1 is particularly suitable for applications where an antimicrobial film can enhance environmental protection from touching hard surfaces in communal areas. Examples of use can be on tables, trays, door push plates, screens, dividers and work surfaces.

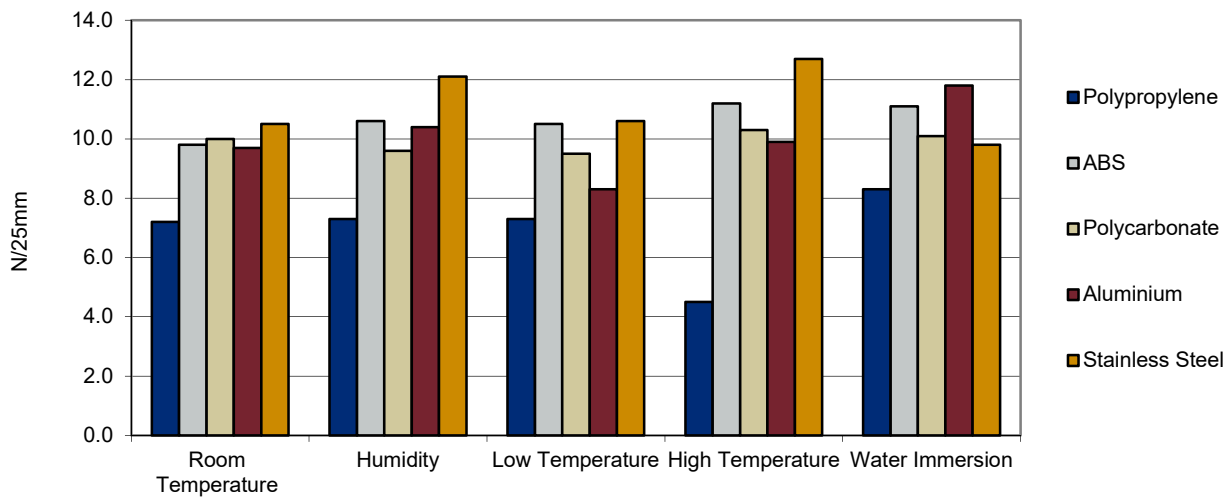
Typical Test Conditions

3-121-17T-R1 withstands the following industry standards and relevant test specifications:

Test Type	Test Method
Normal Duty Abrasion	Taber abrader under 250g pressure for >1000 cycles using CS-8 wheels
Sutherland Rub Test	>5000 cycles using 1.8kg weight at speed 2 (42 cycles/min)
Chemical Resistance	<p>Hand rub: 30 seconds under 2kg pressure using a cloth soaked in:</p> <ul style="list-style-type: none"> - Oleic Acid - Nivea Hand Cream - Nivea Sun Cream - Vaseline Intensive Care - Johnson's Baby Oil <p>Hand rub: 500 cycles using a cloth soaked in:</p> <ul style="list-style-type: none"> - Bleach - Vinegar <p>500 cycles (50 cycles/min) under 250g weight using a cloth soaked in:</p> <ul style="list-style-type: none"> - Bleach - Vinegar
Defacement Test	10 rubs back and forth under 1kg pressure using a metal round edge
Tape Test	610 and 810 tape applied to sample. Removed after 30 seconds.
Cross-hatch Test	Etch 25 x 1mm by 1mm squares into the topcoat and apply 610 and 810 tape. Remove after 30 seconds.
Chemical Immersions	<p>>100 hours immersed in the following:</p> <ul style="list-style-type: none"> - Oleic Acid - Nivea Hand Cream - Nivea Sun Cream - Vaseline Intensive Care - Johnson's Baby Oil
Sweat Test	200,000 cycles under 500g weight in artificial sweat solution

Adhesive Performance

R1 20 micron Removable Acrylic Adhesive
Typical properties based on 50 micron polyester



Test Condition

Room Temperature:	72 hours at standard atmosphere
Humidity:	72 hours at 40°C / 95% RH
Low Temperature:	72 hours at -40°C
High Temperature:	72 hours at 60°C
Water Immersion:	72 hours room temperature water immersion

Temperature Range

Recommended range: -40°C (-40°F) to 60°C (140°F).

Product Application The application surface should be clean and dry. In order to optimise performance, surface temperatures should be around room temperature.

Storage Conditions 3-121-17T-R1 label material and labels manufactured from this material must be stored between 20°C-28°C, below 75% RH and in sealed packaging.

Shelf Life If stored under recommended conditions, then this label material will retain it's specified performance criteria for 2 years.

RoHS Compliance This material meets European (EU) Directive 2011/65/EC on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment. CCL Design can clearly state that our products do not contain halogens and heavy metals etc. in excess of the maximum concentrations stipulated.

NOTE: Product compliance is based upon information provided by independent laboratory testing of our products. CCL Design makes no independent representations or a warranty, express or implied, and assumes no liability in connection with the use of this information.

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