



PCA Precision Coatable UV Adhesive for Screen Printing 7555 T

Product Data Sheet

Updated: March 2010
Supersedes: April 2007

Product Description 7555T PCA is a UV light curable pressure sensitive adhesive developed for flatbed screen printing.

Key Features

- High initial thumb tack
- Very good moisture resistance
- Balanced peel and shear properties
- Consistent processing made possible by wide process windows

Adhesive and Converting Properties

- Optimal adhesive coverage with 100% solids. No solvents or water.
- Excellent printability - thixotropic viscosity
- Excellent wetting / No foaming
- No drying in the screen. Production stops between 1 and 3 hours are possible.
- Excess adhesive left in the screen can be returned to original packaging and used at a later date
- Easy cleaning of adhesive in the screen after printing

Adhesive Type	Modified Acrylic
Colour	Transparent
Density	0,97 g/cm ³
Viscosity:	5.000 – 8.000 mPa.s

UV Curing Properties

- Fast drying by UV light resulting in low temperature strain on substrates
- Transparent adhesive for minimal light absorption at backside illumination
- High flexibility in design & converting by ability to die-cut

Lamp type	Typical UV A Medium-Pressure Mercury Bulbs Power: minimum 80 up to 120 W/cm ²
Curing	UV A -Intensity minimum 0,3 W/cm ² <i>thickness from 25µm to 75µm</i> UV A –Energy dose 800 – 1000 mJ/cm ²

Pressure Sensitive Adhesive Properties

UV – Curing Conditions for the below properties:

UV A Energy:	800 mJ/cm ²
UV A Intensity:	0,5 W/cm ²
Lamp power:	100 W/cm
Adhesive Thickness:	50 µm
Carrier:	125 µm PET-film

Peel Adhesion

180 Degree Peel Adhesion (according to AFERA 4001)
Speed 300 mm/min; Dwell time: 24h at 23°C:

Substrate	N/10mm
Stainless Steel	9
ABS	9
Rigid-PVC	10
Polycarbonate	8
Polyester	10
PP	8

Each low surface energy substrate (e.g. PP, PE) should be tested thoroughly in advance. Different polymer qualities of low surface energy materials as PP or PE can significantly change the bond performance.

Static Shear

Static Shear Resistance (according to FINAT TM No.8)
Substrate: ABS, Bonded area: 25,4mm x 25,4mm.

Temperature	Weight	Time
23°C	500 g	> 10.000 min
70°C	250 g	300 min

Temperature Performance

Short term (minutes/ hours)	+150 °C
Long term (days / weeks)	+105 °C
Minimum temperature	- 40 °C

Applications whereby the adhesive joint is exposed under continuous stress at elevated temperature need to be tested before use.(e.g. laminating panels where final application could be onto tightly curved surfaces)

Applications**Large area Pressure Sensitive Adhesive Structures**

Shower shield films in the automotive industry
Backlit graphics
Graphic applications

Small area precise Pressure Sensitive Adhesive Structures

Displays
Pagers
Front Panels
Touch Panels
Labels
Name Plates

Pressure Sensitive Adhesive Web Coating

Decorative Films

Printing Guideline :

Ready to use !

- Do not use dilutents or additives e.g. defoamer.
 - Residual adhesive in the screen can be returned to the container.
 - Screens from steel, polyester, nylon with a mesh count of #21 to #77 threads/cm can be used.
 - For coating, masking and cleaning of the screens the usual materials for U.V. inks can be used.
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Storage

- Store in original container, close cap tightly for storage.
 - Avoid direct sunlight and other UV-light sources. .
 - Temperature should not exceed 40°C. Please protect from frost.
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Shelf Life

Shelf life is 18 months after the date of manufacture when stored in the original closed and sealed container between +4 and +27°C.

Precautionary Information

Refer to product label and Material Safety Data Sheet for health and safety information before using the product.

For information please contact your local 3M Office.

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