

## KIWOPRINT TATTOO L 1050

### 1. DESCRIPTION

#### Solvent based, rubber pressure sensitive adhesive

KIWOPRINT D159 is a quality adhesive for the manufacture of wet and dry transfers. A special field of application is the production of temporary "tattoos", e.g.: tattoo like transfers to the skin. Materials coated with KIWOPRINT TATTOO L 1050 can be stored for a minimum of one year without any decrease of adhesive strength, if covered with a suitable silicone paper and kept dry and dark at room temperature. Normally, materials coated with KIWOPRINT TATTOO L 1050 are sufficiently light fast. If direct influence of sunlight is expected, trials are absolutely essential. Bondings achieved with KIWOPRINT TATTOO L 1050 are water resistant.

### 2. ADHESIVE PERFORMANCE

#### Guide values achieved with 90µ wet adhesive thickness:

TACK VALUE: Approx. 800 g

Measured with Polyken Tack Tester, 1 sec. adhering, pull-off speed: 1 cm/sec.

PEEL STRENGTH: Approx. 9.8 N/in  
2.2 LB/in  
1.0 KP/in

Measured with shear tension meter BE-T-EX per ASTM. Bonding area 1 x 4 inches or 2.5 x 10 cm.

HEAT RESISTANCE: -20°C / -4°F up to 60°C / 140°F  
Bonding area 1 x 4 inches or 2.5 x 10 cm. 90µ coating thickness wet onto polyester film. Bonded to stainless steel test panel, 30g load.

### 3. SUBSTRATES

Numerous substrates including polyester, polycarbonate, metal and paper.

It is important to test all substrates for their suitability. (i.e. plasticizers in soft PVC may soften the adhesive resulting in reduced adhesion.)

### 4. MESH SELECTION

Use: 175T - 305T threads/in or 68T - 120T threads/cm

When printing onto polyester film using 195 threads/in or 77 threads/cm: the approximate amount of adhesive used is 20g/m<sup>2</sup>

### 5. STENCIL SELECTION

Use solvent-resistant stencils such as KIWOCOL POLY-PLUS S, SRX, or KIWOCOL 3.

### 6. REDUCING

Use up to 10% KIWOSOLV L 17 to reduce KIWOPRINT TATTOO L 1050.

### 7. APPLICATION METHOD

Screen printing, roller or brush.

When screen printing refer to the various sections of this sheet such as: *Substrate, Mesh, Stencil, Reducing, or Drying time* as needed.

In order to know which adhesive suits to each component, as e.g. the carrier, printing ink, release liner, etc. Trials should be run in advance of production. Here in the long term compatibility with the applied printing inks and substrates is of special importance.

ATTENTION: When producing ink transfers which come into contact with skin (temporary tattoos), the 'ready-for-use' transfer (including all printing inks and auxiliary coatings) must be tested for skin irritation. Coatings of KIWOPRINT TATTOO L 1050, dried to a solvent free stage, have already been tested for skin irritation and classified as being "non irritant." A copy of the test report can be obtained upon request.

### 8. DRYING TIME

By room temperature or conventional IR dryers. Drying time depends on quantity of adhesive, type of carrier (substrate), drying temperature and air circulation.

The following figures are only a guide. Your drying environment may yield different values. (Continued).

at 20°C / 68°F Approx. 20 min.  
at 70°C / 158°F Approx. 1 min.

For further processing the applied adhesive film must be completely dry and transparent; only then should the release liner / silicone paper be applied. Please ensure that all solvent residue has completely evaporated when using of KIWOPRINT TATTOO L 1050 as a transfer adhesive for temporary tattoos.

### 9. CLEANING

Dry: KIWOSOLV L 17

Tattoos transferred onto skin are easily removable with baby oil, or if desired, as solvent such as mineral spirits.

**10. PHYSICAL PROPERTIES**

BASE: Synthetic rubber

COLOR: Wet: transparent to slightly yellowish  
Dried: transparent

VISCOSITY: Approx. 1,400 mPas Rheomat STV,  
System CIII, 20°C / 68°F

SOLIDS CONTENT: Approx. 45.5%

DENSITY: Approx. 0.926 g/ccm

pH: Approx. 4.5 +/- 0.3

VOC: 509.3 g/l or 4.24 lbs/Gal

FLASH POINT: +25°C / 77°F

DANGER CLASS: A II

**PRECAUTIONS/ENVIRONMENTAL IMPACT:**

**Please see and follow instructions on the MSDS**

Ensure sufficient ventilation of working area when working with KIWOPRINT TATTOO L 1050.

STORAGE:  
9 months at 68°F/ 20°C in tightly closed original container.

**11. PACKAGING**

4.5 kg =Approx. 1 Gal  
25 kg =Approx. 5.5 Gal

**12. ADHESION**

The bond of self-adhering articles with KIWOPRINT TATTOO L 1050 can be improved by:

- A. Using parts free of mold release agents or substances such as fats, oil, wax dust impregnations, etc. (Make sure all parts that come in contact with the adhesive are dry.)
- B. Optimum application temperature : 68-140°F or 20-60°C.
- C. Additional pressure (approx.: 3-4 bar) with a heated silicone rubber pad 104-122°F or 40-50°C.
- D. Preventing air bubbles and stretching the substrate juring application.
- E. Flat and smooth substrate (i.e. pressure molding parts without burrs or sprue marks.)
- F. Sufficient adhesion surface area relative to total surface area.

**13. PRECAUTIONS**

The following facts have to be considered:

**A.** Check the specifications/ requirements such as tack values, peel strength, climate, temperature and UV resistance.

**B.** Choose a suitable substrate and test for compatibility with the KIWOPRINT TATTOO L 1050. Example: soft PVC may interact with the adhesive layer.

**C.** If direct contact between printing ink and adhesive will occur, test for compatibility, as some inks may interact with the adhesive layer. Long term compatibility with the applied printing inks and substrates is of special importance. Also, test the influences of the liner material and the substrate quality ( roughness, residues from separating agents and plasticizer migration.)

All products mentioned in this technical data sheet are available through KIWO. For further information contact KIWO at 1-800-KIWO-USA.

Thank you for choosing KIWO.