

Dow Corning® Silicone Textile Printing Inks

For durable, high quality screen printing that **looks great, feels soft** and **doesn't crack, fade or run**

Manual screen printing technology represents a large growth opportunity for manufacturers of sportswear and casual apparel. However, PVC (plastisol) and PA inks have some serious drawbacks – such as inferior wash and weather durability, poor hand feel and tackiness – that limit their use, particularly in high-end apparel applications. In addition, some of these products could contain plasticizers and have other negative environmental effects.

To counter these problems, printing mills tried silicone inks because of their good washing durability, hand feel, elongation properties and environmental friendliness. But those products had their own set of issues – tackiness, high viscosity, stiffness and the inability to create low-gloss finishes.

What do you REALLY need to capture the full potential of the market for screen-printed apparel? A soft, non-tacky, elastic printing ink that provides appearance choices, is durable and does not harm the environment. Impossible? Not anymore. The solution you've been waiting for is finally here: **Dow Corning® Silicone Textile Printing Inks.**

POSSIBLE APPLICATIONS

Dow Corning Silicone Textile Printing Inks are suitable for manual screen printing processes on most natural and synthetic fabrics including elastic fabrics.

- Jerseys
- Hats & caps
- Socks
- Jackets
- Gloves
- Sleepwear
- Pants
- Bathing suits
- T-shirts
- Shorts
- Shirts
- Undergarments
- Uniforms
- Sweaters
- Sweatshirts



KEY FEATURES AND BENEFITS

- **High elongation:** Suitable for fabric with 15-20% spandex content
- **Excellent durability:** Wash-resistant
- **Good hand feel:** Soft, non-sticky handle with no blocking problem upon folding
- **Environmentally sound:** Does not contain organotin, phthalate, formaldehyde, PVC or solvent
- **Color fastness:** No color migration (passes the 48 hours at 70°C [158°F] test), even between red and white
- **Improved fashion appearance:** Semi-gloss finish with no creasing
- **Heat resistant:** Ironable, no-melting
- **Suitable for dot printing:** More breathable, high resolution and alternative looks
- **Easier to get 3D effects:** Sharp edges and smooth surface
- **Fast cure:** Skin cured in 3-6 seconds at skin temperatures between 100-130°C (212-266°F)
- **Operation-friendly:** Suitable viscosity and thixotropy
- **Easily pigmented:** A base/catalyst system with a minor to major part of <10%
- **Cost effective:** Lower cycle time and better coverage



TYPICAL PROPERTIES OF SILICONE TEXTILE PRINTING INKS

CTM*	Property	Dow Corning 9600 Textile Printing Ink	Dow Corning 9601 Textile Printing Ink
0050	Mixed Viscosity, cP	490,000	280,000
0022	Specific gravity	1.11	1.07
0137A	Elongation, %	700	850
0137A	Tensile Strength, MPa	5.7	3.2
0159A	Tear Strength, kN/m	18.4	4.5
0099	Hardness, Shore A	21	16

* CTM – Corporate Test Method. Base to catalyst mix ratio 100:4.5. Test sheets prepared by compression molding a mixture of base and catalyst and cured for 12 minutes at 120°C (248°F).

PRODUCTION ADVANTAGES

- **Cost effective:** Typical inks can require 12-15 layers to achieve optimal coverage. You can achieve the same effect with only three layers of *Dow Corning* Silicone Textile Printing Ink, resulting in a less bulky finish, lower material usage, faster production life cycle and labor cost savings.
- **Easily pigmented:** Base-to-color masterbatch ratios are not fixed, allowing you to adjust the printing ink color. (Pigments should be tested for compatibility first.)
- **No environmental or user issues:** Most PVC inks are being phased out. Other inks could contain other harmful materials. *Dow Corning* Silicone Textile Printing Inks offer a non-toxic, environmentally sound alternative.
- **Operation-friendly:** Improper viscosity or thixotropy can make printing difficult or result in poor ink penetration. *Dow Corning* Silicone Textile Printing Inks provide a viscosity and thixotropy suitable for manual screen printing.

PROMOTIONAL ASSISTANCE

Dow Corning Textiles offers the benefits of its globally recognized *Powered by Dow Corning*® ingredient branding program to help promote your products. A unique hangtag explaining the benefits of *Dow Corning* Silicone Textile Printing Inks is also available for your use. Please contact us to discuss in more detail.

LEARN MORE

To request a sample or for more information about using *Dow Corning* Silicone Textile Printing Inks, contact us directly or ask your coater to contact us.

WEB www.dowcorning.com/screenprinting
Downloadable data sheets and live chat available.

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Photos (from left to right on front): AV09831, AV09830, AV11948, AV11949

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