



Discover Bluestar Silicones technologies for textile printing inks

Bluestar Silicones is one of the **leading silicones players** in the world fully integrated throughout the whole production chain. With over **50 years' expertise** in silicones, Bluestar Silicones offers a **full range of products** in fields including release coatings, specialty elastomers, healthcare products, specialty fluids, emulsions and resins.

www.bluestarsilicones.com

Bluestar Silicones. Delivering Your Potential.

BLUESTAR
SILICONES

Silicones technologies for textile printing inks

Market update

- Some international textile manufacturers have **banned the use** of PVC and phthalates in their inks
- **Real need of innovation** in the printing market



Why choose Silicones for textile printing inks? Lots of benefits in terms of:

→ Environment:

Environmentally friendly: no PVC, no phthalates, no tin and Oeko Test Standard 100 Compliant

→ Quality of the finished product

- **Excellent durability**, wash resistant, ironing compatible and good adhesion to the textile
- **High elongation, excellent adhesion** onto textiles
- **Excellent hand feel, multiple printing effects**

→ Process

User friendly, very easy to process, and fast!

Durable printing on textiles for:

- **Screen printed** logos and labels
- **Anti-slip** aid on sport garments and accessories
- Reinforcement patches
- **And so many other applications...**



Silicone-based printing inks compared with current technologies

Silicone inks: Bluestar Silicones' solutions	Plastisol inks	Water-based inks
Silicone-based formulated inks 2 components, 100% solids	PVC resin and plasticizer based system, 100% solids	Polyacrylic or Polyurethanes water-based latex systems
Environmentally friendly → Oeko Test compliant	Not fully environmentally friendly (PVC, phthalates)	Environmentally friendly
User friendly products: viscosity and thixotropy adapted to the substrate and the process (screen printing)	User friendly : very easy to manage, viscosity can be modified with additives. Wet-on-wet printing possible	Excellent ink system for high speed roll-to-roll printing. Limited thickness of printing, lower efficiency process.
Fast curing at lower temperature (>120°C)	Cure temperature of 160-180°C	Drying at room temperature (with catalyst) after water evaporation (>100°C)
Good hand feel, soft, with no blocking even with thick prints	Poor hand feel on thick prints (plastic!)	Some tackiness and poorer hand feel
Iron compatible, excellent durability, wash and light resistance	Poor ironing stability, lower durability	Poor ironing stability, lower durability
Stable over a wide range of temperatures; flexible even at negative temp. (<-30°C)	Instability under extreme temperatures	Instability under extreme temperatures
Excellent printing on elastic and high end textiles	Excellent printing on light colored textiles	Excellent printing on towels, yardages
Cost: med-high	Cost: med-high	Cost: low-med

We have a range of products suitable for the formulation of textile printing inks that we are sure will bring new functions and benefits to your printed textiles...



Bluestar Silicones' products

Discover some of Bluestar Silicones' products:

	TCS 7513	TCS 7537	TCS 7552	TCS 7560	TCS 7772
Appearance	Translucent	White	White	Transparent	Translucent
Viscosity	3,000 cps	45,000 cps	50,000 cps	120,000 cps	220,000 cps
Durometer	36 ShA	30 ShA	20 ShA	15 ShA	20 ShA
Elongation	200%	200%	550%	800%	575%
Characteristics	low viscosity high adhesion	harder system, high adhesion	high physical properties, high adhesion	soft system, anti-slip properties	excellent adhesion on stretch fabrics

Setting up new standards in performance and quality:

- All our products are **ready to be formulated** further with fillers and pigments
- Sets of viscosities and rheology adapted to the printing application and to the textile substrate
- These TCS base systems will **cure in less than one minute** at elevated temperature (>120°C)
- **Dedicated features** for the best results, that are consistent and durable



Go longer, better and greener with Bluestar Silicones' TCS base systems for the formulation of textile printing inks!

Get in touch with our marketing department!

marine.willemse@bluestarsilicones.com

Or for general information:

webmaster.silicones@bluestarsilicones.com

Bluestar Silicones France
21 Avenue Georges Pompidou
F 69486 Lyon Cedex 03 FRANCE
Tel. (33) 4 72 13 19 00
www.bluestarsilicones.com