

# Apparel, Fabric and Textile Products

Size Chart							
Size (CM)	73	76	79	82	85	88	91
Size (INCH)	29	30	31	32	33 - 34	35	36

## About 3 Sigma

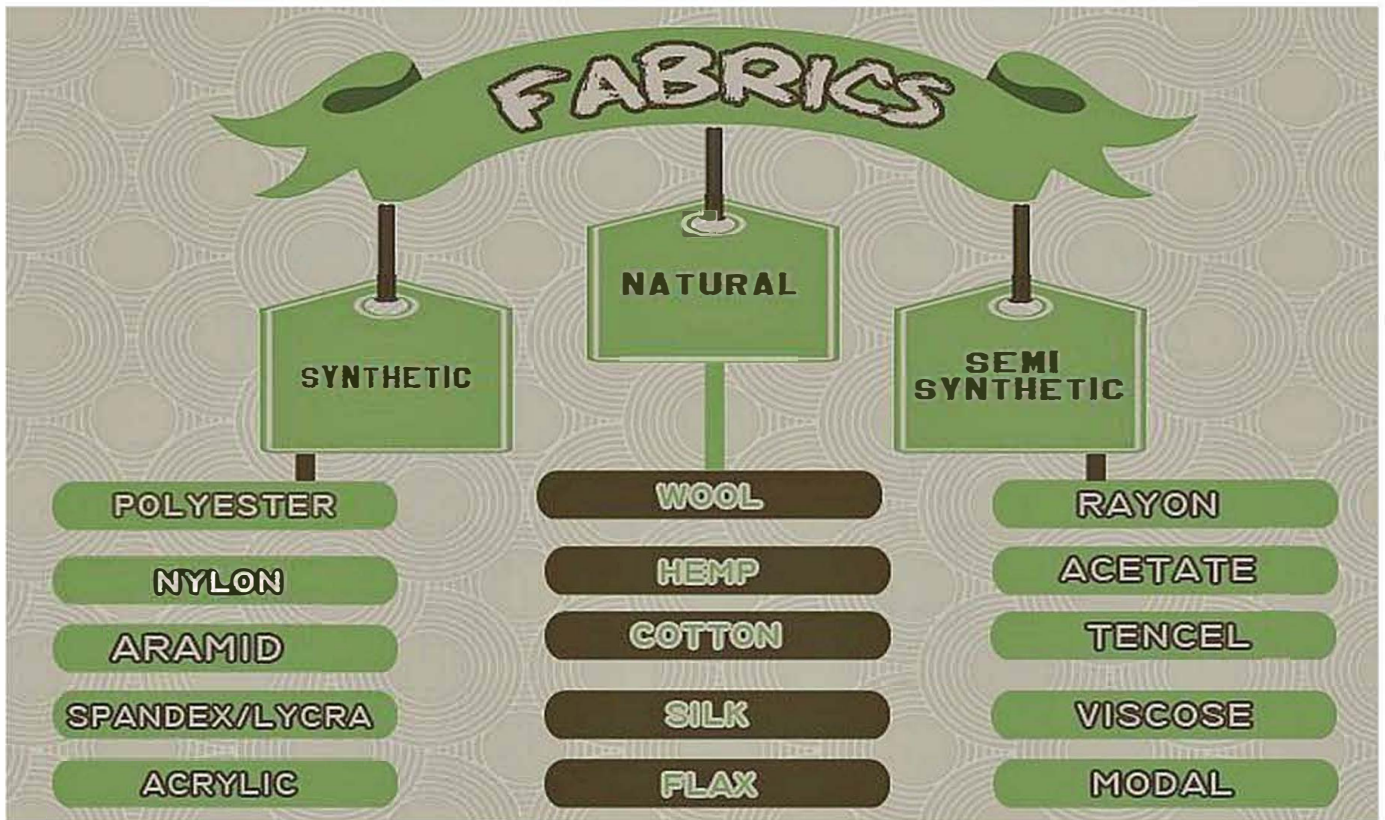
Established in 1980, 3 Sigma is a fast-growing innovator of pressure sensitive adhesive coated products. 3 Sigma uses its solvent, emulsion and hot melt technology expertise to produce specialty or complex adhesive constructions at our facility in Troy, Ohio. Our flexibility, creativity, market experience and unique product commercialization approach enables us to create higher margin, innovative products for our customers, helping them to capture market opportunities, reduce waste and production costs, and increase output.



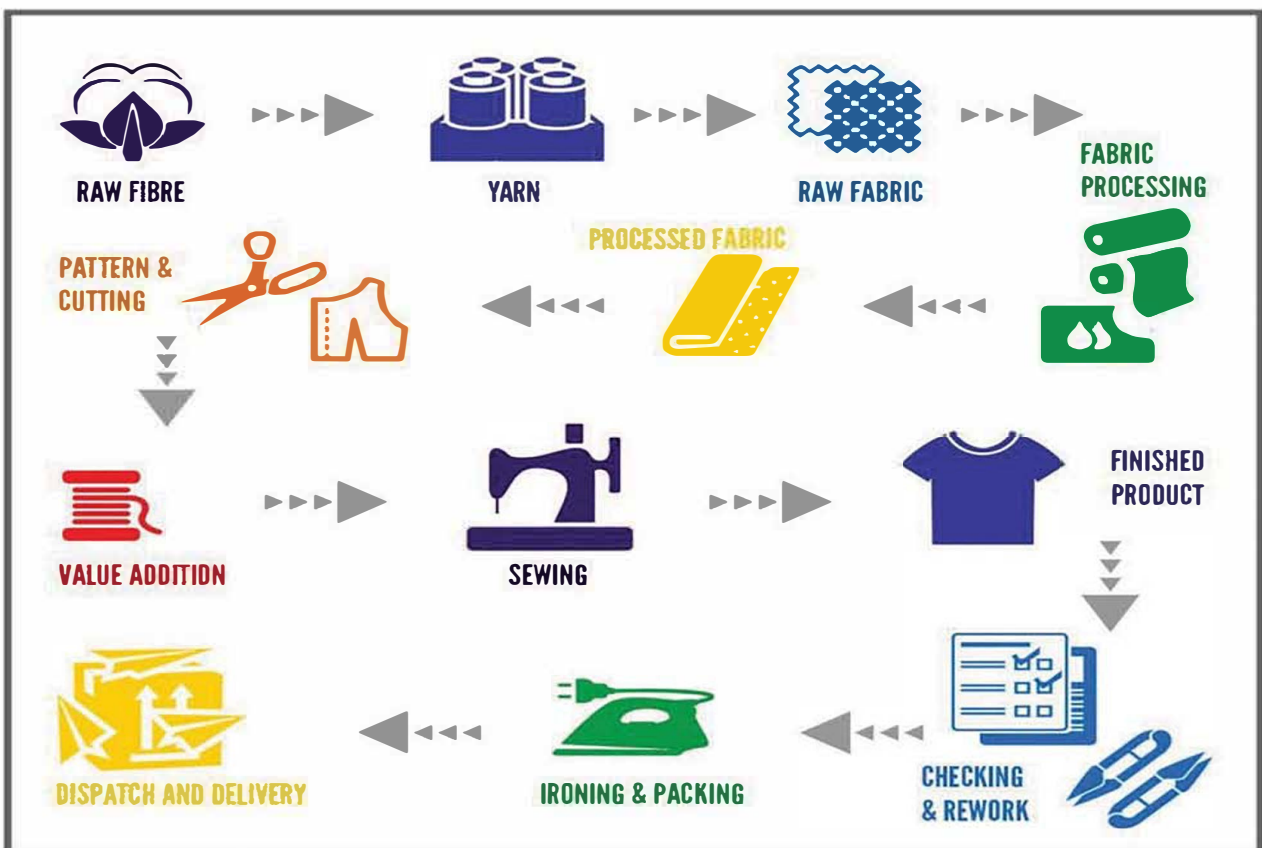
## A Proven Approach

Research and Development of custom adhesives and top coats for highly specialized pressure sensitive products is our specialty. Our solvent, emulsion and hot melt chemistry and manufacturing capabilities are utilized every day to create unique, value-added products for our customers that add directly to their bottom line. 3 Sigma's research and development personnel have worked in large multi-national corporations and follow a unique, collaborative approach when working with customers and strategic partners, ensuring alignment and a superior customer experience.

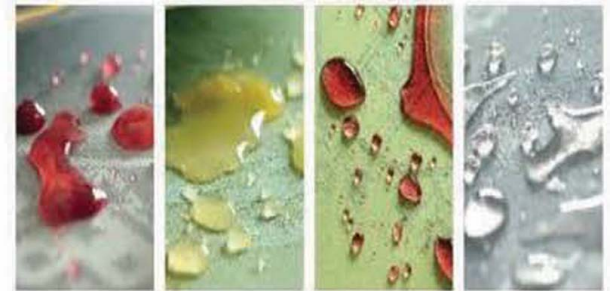
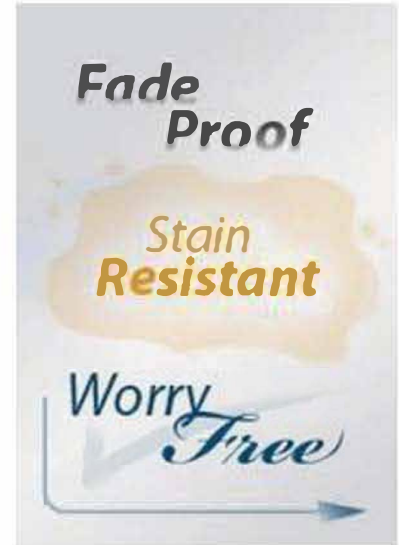
# Textile Information



## Typical Garment Manufacturing Process



# Textile Information



# Innovation & Expertise

Clothing and apparel have become one of the more difficult label applications over the past few years due to the advent of non-stick and non-stain coatings. Most pressure sensitive adhesives have a difficult time trying to adhere to “non-stick” surfaces and if they do, the adhesive is usually so aggressive that it leaves residue or ghosting when pulled off an article of clothing. 3 Sigma has a proven performer that works on a wide variety of fabrics and coatings. In addition, we offer many other constructions that are needed or useful in the textile world. And....if we don't have an already proven product, we will design a customer construction that fits your specific need.

## Typical Applications:

- Regulatory Labeling
- Size Labels
- Brand Labels
- Price Labels
- Wraps/packages
- Care & Instructions
- Protective Coatings
- Fabric Repair or Defect Indicators
- Tamper Evident & Anti-Counterfeiting



Size Labels (Sigmaflex)



Brand Identification



Name Tags



Sock Wraps



Cotton Bale



Carpet Backing & Labels

# Innovation & Expertise

<b>Retail Products</b>		
Size and Brand Labeling	Anti-Stain/residue	3mil Matte TC White PE / AFAB2 / 50# Liner
Size and Brand Labeling	Anti-stain/residue	2.9mil White Sigmaxflex V2 / AFAB3 / 50# Liner
Size and Brand Labeling	Microfibers	2.9mil Clear Sigmaxflex V2 / AFAB2 / 50# Liner
Size and Brand Labeling	Microfibers	2.9mil Clear Sigmaxflex V2 / AFAB1 / 50# Liner
Size and Brand Labeling	Tag Product - reposition	8 pt Tag / REP4 / 40# Liner
Size and Brand Labeling	Tag Product - All Temp	8 Pt Tag / AT2000 / 40# Liner
Name Tags	Satin Cloth	Satin Cloth / PE3 / 50#
Name Tags	Tag Stock(s)	8 pt Tag / PE50 / 40#
Note: multiple adhesives exist for stain resist/difficult fabrics - contact customer service to discuss		
Price Marking	Cover Up Labels	50# Direct Thermal / SP9 / 40#
Price Marking	Cover Up Labels	43# CTD Thermal Transfer / SP9 / 40#
Price Marking	Price Marking	Fluorescent Face (various colors) / RE5 / 40#
Price Marking	Price Marking	8 Pt Tag / Breakaway / 40#
Sock Tags/Labels/Wraps	Tag Stock(s)	8 Pt Tag / PE3B / 40#
RFID Tag Labelstocks	Foam	Foam Face (Cust defined) / PE21 / 40# Liner
<b>Fabric &amp; Material Processing</b>		
Cotton Bale	Traditional/Over-wrap	3mil Sigmaxflex/TRL2/40#Liner/ AT2000/40# L
Cotton Bale	Traditional/Over-wrap	8 pt Tag / TRL2B / 40#
Cotton Bale	Traditional/Over-wrap	60# Matte Litho / TRL2 / 80# Liner
Cotton Bale	Traditional/Over-wrap	3 mil SigmaFlex / TRL2B / 80# Liner
Cotton Bale	Auto - Field/Bag wrap	2 mil TC White Metallized PET/2044X/50# Liner
Fabric/Matl Identification	Hang Tags	7.5mil Valeron / PE3 / 1.5mil PET Liner
Fabric/Matl Identification	Durable ID Labels	43# Ctd TT / TRL2 / 40# Liner
Fabric/Matl Identification	Durable ID Labels	3mil Sigmaxflex / TRL2 / 40# Liner
Carpet Backing and Labels		3mil Sigmaxflex / TRL2 / 40# L
Fabric/Clothing Repair	Patching Material	Fabric (Cust Spec) / SP39B+ / Layflat Liner
Fabric/textile Processing	Defect Indicator	Silver 2 side Foil-Poly Laminate / A101B / 40#
Fabric Coatings	Non-Wovens	Moisture Barrier
Fabric Coatings	Non-Wovens	Pigmentations
Fabric Coatings	Non-Wovens	Friction Coatings
<b>For packaging:</b>		
Anti-counterfeit/	Void Tape	2 mil PET Void (various Colors) / A106 / 40#
Tamper Evident	Destructible	4 Mil PolyArt TE / A106 / 40# Liner
Garment Affixing Tape	General	40# / PE3 / 1 mil PET L / PE3 / 40#



## RFID Labeling



## Price Marking



## Fabric Coatings



## Fabric Repair/Patching Mats



## Defect Indicators



## Security Products

# Size & Brand Labeling

## Products that adhere to difficult fabric coatings

3 Sigma's adhesive technology and development have enabled us to formulate constructions that stick well on very difficult apparel surfaces. One of the most difficult applications for a label is the anti-stain, anti-stick coatings that make clothing easier to clean and maintain over time. While some manufacturers have figured out how to make something adhere, they haven't figured out how to do so without ghosting, adhesive residue, or fabric pulling. 3 Sigma's products eliminate those issues. We have a multitude of highly flexible/conformable face-stocks that print exceptionally well and when coupled with our superior adhesive technology, eliminate re-processing of apparel and minimize or eliminate complaints over residue or damage to the clothing.



## A wide range of constructions to meet your apparel labeling needs

3 Sigma will work with you to determine the proper fitness-for-use construction for your specific application. We stock (or have quick turnaround delivery) on a wide range of materials which enables us to quickly design or manufacture the product you need to satisfy your customer. From standard to unique face-stocks we can provide the look and printability you require. Combined with our wide range of adhesive capability, we can quickly offer you a unique solution giving you a much higher opportunity at achieving the business.



Size and Brand Labeling	Anti-Stain/residue	3mil Matte TC White PE / AFAB2 / 50# Liner
Size and Brand Labeling	Anti-stain/residue	2.9mil White Sigmafex V2 / AFAB3 / 50# Liner
Size and Brand Labeling	Microfibers	2.9mil Clear Sigmafex V2 / AFAB2 / 50# Liner
Size and Brand Labeling	Microfibers	2.9mil Clear Sigmafex V2 / AFAB1 / 50# Liner
Size and Brand Labeling	TagProduct-reposition	8 pt Tag / REP4 / 40# Liner
Size and Brand Labeling	TagProduct - All Temp	8 Pt Tag / AT2000 / 40# Liner

# Cotton Bale

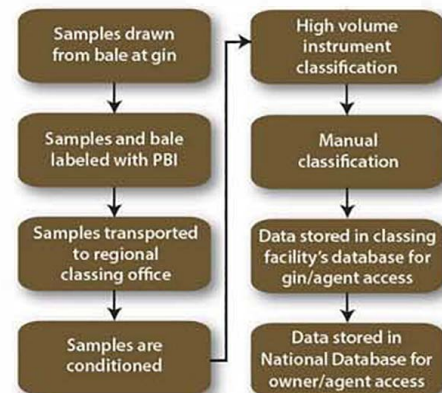
## Products that adhere to difficult surfaces

Raw cotton is a very difficult surface for labeling. It is soft, inconsistent, and contains moisture in varying degrees. Regardless, it is a regulated product that has to carry a high performance, non-fail product and must hold up to very rigorous outdoor and indoor conditions. High heat, wind and rain must not be able to cause product failure. 3 Sigma offers multiple constructions that provide highly durable face-stocks and one of the best heavy duty adhesives in the industry. We have the capability to coat thick layers of adhesive, but provide innovative process technology that minimizes printing and die-cutting issues for the converter. 3 Sigma offers the most widely used constructions in the field, but will also work with you if you have a new or innovative idea or need.

## The scope and purpose of "Cotton Tracking"

The PBI system allows cotton to be tracked from the field to the classing office. In the field, each cotton module is labeled with an identification number that links it to the producer, field, and seed variety. At the gin, each module identification number is logged into a database, and each bale is labeled with a PBI tag with a twelve-digit number and barcode identifying the classing office, gin, and bale. Samples taken at the gin for classing also are labeled with PBI tags.

At the classing office, the PBI tag follows the sample through testing. The results are linked to the bale and stored in the USDA AMS Cotton and Tobacco Program's National Database by PBI number. The classification data in the National Database can be accessed by the owner of the cotton or the owner's authorized agent. Users of this system include grower marketing cooperatives, buyers, and textile manufacturers



Cotton Bale	Traditional/Over-wrap	3mil Sigmaflec/TRL2/40#Liner/AT2000/40#L
Cotton Bale	Traditional/Over-wrap	8 pt Tag / TRL2B / 40#
Cotton Bale	Traditional/Over-wrap	60# Matte Litho / TRL2 / 80# Liner
Cotton Bale	Traditional/Over-wrap	3 mil SigmaFlex / TRL2B / 80# Liner
Cotton Bale	Auto - Field/Bag wrap	2 mil TC White Metallized PET/2044X/50# Liner

# Retail

## A range of products to cover every need

From something as simple, but obviously important, as a price marking label to a construction that identifies or protects your valuable name and product, 3 Sigma has an option for your need. Fluorescent face stocks, durable tag stock, papers and films of most popular gauges and properties are available to engineer the product that answers your “fitness-for-use” equation. Adhesives that range from light tack repositionables to high shear and tack permanents. Products that peel cleanly from your material cleanly with no residue. The number of options seem limitless.



## A sampling of potential constructions for various applications

Name Tags	Satin Cloth	Satin Cloth / PE3 / 50#
Name Tags	Tag Stock(s)	8 pt Tag / PE50 / 40#
Note: multiple adhesives exist for stain resist/difficult fabrics - contact customer service to discuss		
Price Marking	Cover Up Labels	50# Direct Thermal / SP9 / 40#
Price Marking	Cover Up Labels	43# CTD Thermal Transfer / SP9 / 40#
Price Marking	Price Marking	Fluorescent Face (various colors) / RE5 / 40#
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Sock Tags/Labels/Wraps	Tag Stock(s)	8 Pt Tag / PE3B / 40#
RFID Tag Labelstocks	Foam	Foam Face (Cust defined) / PE21 / 40# Liner
<b>For packaging:</b>		
Anti-counterfeit/	Void Tape	2 mil PET Void (various Colors) / A106 / 40#
Tamper Evident	Destructible	4 Mil PolyArt TE / A106 / 40# Liner
Garment Affixing Tape	General	40# / PE3 / 1 mil PET L / PE3 / 40#



# Textile and Fabric Processing

## From raw material to finished product – we have you covered

Since 3 Sigma's inception, the company has been a valuable supplier to this marketplace. Over that time, our technology has evolved from very basic, but durable adhesives to our product range now, which includes some of the most highly engineered and robust products in the industry. Due to their nature, fabrics and textiles are one of the most demanding and difficult applications for pressure sensitive adhesives. Call us to discuss your specific application and the wide variety of solution options we can offer.



## A sampling of potential constructions for various applications

Fabric/Matl Identification	Hang Tags	7.5mil Valeron / PE3 / 1.5mil PET Liner
Fabric/Matl Identification	Durable ID Labels	43# Ctd TT / TRL2 / 40# Liner
Fabric/Matl Identification	Durable ID Labels	3mil Sigmafex / TRL2 / 40# Liner
Carpet Backing and Labels	Carpet	3mil Sigmafex / TRL2 / 40# L
Fabric/Clothing Repair	Patching Material	Fabric (Cust Spec) / SP39B+ / Layflat Liner
Fabric/textile Processing	Defect Indicator	Silver 2 side Foil-Poly Laminate / A101B / 40#
Fabric Coatings	Non-Wovens	Moisture Barrier
Fabric Coatings	Non-Wovens	Pigmentations
Fabric Coatings	Non-Wovens	Friction Coatings

# Solutions

## **An ISO 9001-2015 Organization Dedicated to Innovative Pressure Sensitive Solutions**

3 Sigma is a rapidly growing, resourceful innovator of unique pressure sensitive coated products. Our commitment to you, our customer, is to continuously seek ways to address and improve critical business needs: speed of development and commercialization, production efficiency, product performance and quality. We have the necessary expertise regarding material and process technologies, to consistently produce superior products that meet your ultimate requirements.

Our customer service and technical associates will work with you to develop and manufacture custom constructions that allow you to provide innovation to your end-user and differentiate yourself from your competition. All of 3 Sigma's associates are focused on assuring a "customer-friendly" experience that offers:

- **Easy access to decision makers and technical experts**
- **Flexible and responsive production with the quickest custom order turn-around in the industry**
- **Utilization of our facility and tech support for your design and trial experiments**
- **Production volumes and product designs that meet your needs, not ours**

We look forward to working with you and in assisting you in becoming a more valuable resource to your customers. Please contact us: **1-800-347-3091 • [www.3sigma.cc](http://www.3sigma.cc)**



# Sustainability & Conservation

3 Sigma is committed to the goal of reducing our energy consumption, utilization of re-cycled materials, and re-cycling of existing materials wherever possible. We work in conjunction with our customers and our suppliers in an effort to be good stewards of natural resources and minimizing our impact on the environment. Below are just a few of the processes and practices we've instituted to meet those goals.

- Recycling of all paperboard and corrugated items.
- Recycling of office waste paper, plastic bottles, printer cartridges, etc.
- Recycling and collection of aerosol cans, bulbs , batteries, air compressor condensate, refuse oil, steel and other metals,
- The use of non hazardous safety cleaners and recycling of our cleaning chemicals.
- Recycling of packaging supplies and pallets. (Collection/Refurbishment/Re-use)
- Cleaning and recycling of all totes and drums used to supply adhesive materials.
- Recycling of purged adhesives into other manufacturing processes.
- Ongoing preventative maintenance programs for all manufacturing systems to ensure highest efficiency and minimize energy usage
- Monitoring electric, natural gas and water usage through the EPA Energy Star plants and facilities program, allowing tracking of improvements and reductions
- Utilization of a recycling company to handle start up and production scrap or waste as opposed to sending to a land fill.
- Monitoring and shutting down energy-using equipment when not in operation or needed in both office and manufacturing locations.
- Replacement of older lighting units with more efficient and lower energy systems.
- Auditing all air compressors and delivery systems to eliminate leaks (which causes added electricity usage).
- Using the heat generated from our process ovens as an alternate heating supply in the winter months.
- Preventive maintenance programs to make sure the HVAC systems are operating at peak efficiency.
- All Inter-office reports are generated electronically and distributed through email to minimize paper usage and waste.

**3SIGMA LLC.**

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