

# MILITARY & POLICE

PRODUCT **GUIDE** 

## WHO ARE WE?

#### 150 YEARS OF HISTORY

TDV Industries was founded back in 1867, when the Coisne and Lambert families decided to join forces to set up a textile mill in Armentières, in the North of France.

1914: The onset of the First World War interrupted the factory's output as the mill was occupied by the invading army and the sons were conscripted. The fathers of the family (second generation) then set up a temporary factory in Choisy where it continued to operate until 1920. At the time, the firm's fabrics were used by rubber tire manufacturers like Michelin and Hutchinson. By the time the firm had bought a new factory in Saint-Quentin in the Vermandois region (North of France), a new world conflict was about to break out. The firm finally settled in Laval (Mayenne) and renamed itself as the Textiles du Vermandois (TDV) in reference to its Saint-Quentin factory.

In 1952, TDV Industries invested in new machinery and added spinning, dyeing and finishing to its original weaving activities.

TDV Industries thus became completely selfsufficient by integrating the four stages of the textile manufacturing process on the same production site. For many years, this gave TDV Industries a significant competitive advantage.

The 1980s were a key period in TDV Industries' development as the firm continued to invest in its production plant. Faced with the fast pace of globalization and the growing European textile industry crisis, TDV Industries decided to divest itself of its clothing branch (which had been fully integrated in



the mean time) and to focus on manufacturing fabrics for civilian or military uniforms.

The new Millenium heralded a whole new paradigm with growing environmental and social expectations and diminishing natural resources. TDV Industries became acutely aware of the textile industry's environmental and human responsibility and by 2009 had implemented measures to reduce its impact by using organic and fair trade cotton with zero water footprint, organically-sourced fibers (linen and hemp) or recycled artificial fibers (polyester), by integrating the production line (weaving, dyeing, printing and finishing on the same production site in France to avoid unnecessary transport and packaging at each manufacturing stage, waste recycling or reprocess-



ing and today, manufacturing fabrics from used garment materials. The company is now a pioneer in the development of environmentally sustainable and circular textile solutions.

For TDV Industries, the duty of care, transparency and accountability were company policy long before legislation made it mandatory, with the company's ESR report, Agenda 21, its environmental benchmarks, its societal impact indicators, its compensation targets and its membership of the Global Compact.

Transparency also means Oekotex, Fairtrade and GOTS-Ecocert (organic cotton) certification. TDV Industries aims to pave the way for the fabrics sector to adopt more responsible and sustainable production processes.



The company is currently run by the 5<sup>th</sup> generation of Coisnes and Lamberts, represented by Christophe Lambert. The 6<sup>th</sup> generation is also on board, with the arrival of Paul Devilder (Coisne branch) in January 2019.

For its products, TDV Industries' production strategy focuses on technical and functional fabrics, developing its PROTECTIVE and INDUSTRIAL product lines, integrating a printing unit and developing increasingly cuttingedge materials, such as aramid fibers and other technical fibers.

TDV Industries began turning to more technical and functional fabrics in 2015. This is due to the growing demand (both in the civilian and military sectors) for cutting-edge textile solutions: lighter, yet more efficient products, combined properties without any compromise on comfort and sustainability, etc. TDV Industries is already preparing for the next textile industrial revolution and is designing the textiles of the future. Thermal comfort, alert fabrics, self-cleaning fabrics, low formaldehyde fabrics, multipurpose fabrics, smart fabrics with high big-data content are the keywords of our "textile 3.0" motto: 3 for big-data inside, smart and touch sensitive; 0 for zero risk, zero carbon, and zero waste. We are already preparing for the company's next 150 years.

1867

The Coisne & Lambert families set up a weaving mill in the North of France.
After acquiring a textile company based in the Vermandois region, the company is renamed as Textile du Vermandois

1920

The production of woven fabrics for tires is discontinued in favor of work wear 1938

Relocation to Laval, Mayenne. Textile du Vermandois is renamed as TDV Industries 1952

TDV Industries incorporates spinning, weaving, dyeing and finishing processes 2000

Growing environmental awareness, social commitment and diversification in technical and functional fabrics 2015

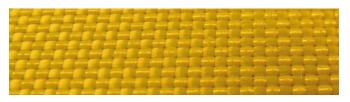
Move to more functional and technical textile products 2019

The 6<sup>th</sup> generation of shareholders now at the helm of TDV Industries Integration of a printing tool.

## **MATERIALS**

#### PREMIUM MATERIALS COMBINED WITH OUR EXPERTISE

TO ENHANCE YOUR PERFORMANCE



#### **Aramid fiber**

Also known as aromatic polyamide, it is a synthetic fiber that boasts great mechanical properties and excellent heat resistance (up to 300°C). It does not ignite or melt. It is said to be "inherently fire-retardant". Depending on the molecular chain, there are two types: meta-aramid and para-aramid. The latter, less commonly used, features outstanding cut resistance properties. Their weak point however, if they are not "solution-dyed", lies in the colors' UV resistance. Aramid fibers are therefore used in fabrics that need to be lightweight, flexible and with superlative flame and heat resistance.



#### Modacrylic fiber

A lightweight, insulating synthetic fiber that melts without burning. It is therefore used as an "inherently fire-retardant" material, usually in combination with other fibers to optimize its resistance to pilling.



#### FR viscose

FR viscose is chemically produced from wood pulp (cellulose, etc.), and is treated to yield inherently fire-retardant properties.



#### **Polyester**

A lightweight synthetic fiber with good waterproof properties. It is usually used in combination with other materials to facilitate fabric care operations, and optimize drying time. Polyester fiber is durable and resistant to chemicals. However, it is readily flammable. In recent years, TDV Industries has been partly using recycled polyester to reduce the impact of production.



#### **Polyamide**

A lightweight synthetic fiber with great mechanical resistance. It is commonly used in combination with other textile materials to improve fabrics' wear resistance and tear strength. As polyamide fibers have good waterproof properties, they are ideal for fabrics that need to dry quickly.



#### Cotton

A natural fiber that makes fabrics comfortable, warm and resistant. It is ideal in fabrics worn in direct contact with the skin, as its fiber is soft, non allergenic and absorbs moisture. Fully aware of the environmental impact of cotton production, TDV Industries decided twenty years ago to use cotton from organic and fair trade (with a low to zero water footprint) or European sources.



#### **Viscose**

An artificial fiber chemically produced from wood pulp (cellulose). The fiber is breathable and gives fabrics a supple and silky appearance, which is why it is also referred to as "artificial silk".



#### **Antistatic fibers**

They should actually be referred to as (electricity) conductive fibers, which dissipate electrostatic discharges. They can be synthetic (polyamide, polyester base) with a silver, copper, or all metallic (stainless steel) core-sheath.

# **OVERVIEW**

## MILITARY & POLICE PRODUCT GUIDE

PRODUCT	WEIGHT g/m <sup>2</sup>	CONTENT		FEATURES	
UNIFORM FABRIC	S				
PPEC 135	135	65% polyester	35% cotton	/	
PPEC 145	145	65% polyester	35% cotton	/	
PPfafC 145	145	100% polyester, cotton-like		/	
CH21 RP	210	67% cotton	33% polyester	CARBON OPTION	(((licir
ChCP 210	210	67% cotton	33% polyester	CARBON OPTION	(Micir
CPC 240	240	67% polyester	33% cotton	CARBON OPTION	
SCP 270	270	65% cotton	35% polyester	CARBON OPTION	
CR 27	270	67% cotton	33% polyester	CARBON OPTION	(()
CHV 280	280	50% cotton	50% polyester	(CARBON OPTION)	
ChCP 285	285	67% cotton	33% polyester	CARBON OPTION	
CC320	320	100% cotton			
FIRE-RETARDANT	UNIFORM FABRIC	s			
SKINFIRE	130	50% aramid fiber	50% FR viscose	/	
TO 180 AS	180	55% aramid fiber 44% FR viscose	1% antistatic	/	
SE 190 AS	190	52% aramid fiber 47% FR viscose	1% antistatic	/	
CHR 215	215	53% aramid fiber	47% FR viscose	/	(Micr
ChTAS 230	230	99% aramid fiber	1% antistatic	/	
CHR 240	240	50% FR viscose	50% aramid fiber	/	((()))
SecuriT AS 240	240	40% aramid fiber 34% modacrylic fiber	25% cotton 1% antistatic	/	
SKVAS 260	260	50% FR viscose 48% aramid fiber	2% antistatic	/	

## **OVERVIEW**

## MILITARY & POLICE PRODUCT GUIDE

PRODUCT	WEIGHT g/m <sup>2</sup>	CONTENT		FEATURES				
STRETCH UNIFORM FABRICS								
TOR 1990	190	60% polyamide 36% cotton	4% spandex	/				
SAVEL 200	200	50% aramid fiber 48% viscose	2% spandex	Inherently fire-retardant				
SPCEL 200	200	65% polyester 33% cotton	2% spandex	/				
CCPEL 215	215	50% cotton 48% polyester	2% spandex	/				
SPCEL 240	240	65% polyester 33% cotton	2% spandex	/				
CCPEL 250	250	50% cotton 48% polyester	2% spandex	/				

#### Important:

The general data and the data pertaining to standards are not contractual.

### **UNIFORM FABRICS**

#### MILITARY & POLICE PRODUCT GUIDE



**PPEC 135** 

Poplin | 135 g/m² | 150 cm | 65% polyester - 35% cotton

Standard application:

Shirts



#### **PPEC 145**

Poplin | 145 g/m<sup>2</sup> | 150 cm | 65% polyester - 35% cotton

Standard application:

Shirts



#### PPfafC 145

Poplin | 145 g/m<sup>2</sup> | 150 cm | 100% polyester, cotton-like

Standard application:

Shirts



CH21 RP CARBON OPTION

Ripstop chevron | 210 g/m² | 150 cm | 67% cotton - 33% polyester

Standard application:

Features:

Combat gear

IR reflection, ripstop



ChCP 210 CARBON OPTION

Chevron | 210 g/m² | 150 cm | 67% cotton - 33% polyester

Standard application:

Features:

Combat gear

IR reflection



CPC 240 CARBON OPTION

Chevron | 240 g/m<sup>2</sup> | 150 cm | 67% polyester - 33% cotton

Standard application:

Camouflage jackets, pants and multipurpose jackets

## **UNIFORM FABRICS**

### MILITARY & POLICE PRODUCT GUIDE



SCP 270 CARBON OPTION

Satin | 270 g/m² | 150 cm | 65% cotton - 35% polyester

#### Standard application:

Bunker suit



#### CR 27 CARBON OPTION

Ripstop twilled | 270 g/m² | 150 cm | 67% cotton - 33% polyester

#### Standard application:

Combat gear, accessories

#### Features:

IR reflection, ripstop



#### CHV 280 CARBON OPTION

Chevron |  $280 \, \text{g/m}^2$  |  $150 \, \text{cm}$  |  $50\% \, \text{cotton}$  -  $50\% \, \text{polyester}$ 

#### Standard application:

Battledress



#### ChCP 285 CARBON OPTION

Chevron | 285 g/m2 | 150 cm | 67% cotton - 33% polyester

#### Standard application:

Specialist work wear



#### CC320

Twilled | 320 g/m<sup>2</sup> | 150 cm | 100% cotton

#### Standard application:

Work wear

#### Important:

Colors are provided for information only. They are tailored to the customer's requirements.

## FIRE-RETARDANT UNIFORM FABRICS

### MILITARY & POLICE PRODUCT GUIDE



#### **SKINFIRE**

Canvas | 130 g/m² | 150 cm | 50% aramid - 50% FR viscose

#### Standard application:

Lining



#### **TO 180 AS**

Canvas |  $180 \text{ g/m}^2$  | 150 cm | 55% aramid - 44% FR viscose - 1% antistatic

#### Standard application:

Battledress



#### **SE 190 AS**

Twill 2/1 | 190 g/m² | 150 cm | 52% aramid - 47% FR viscose - 1% antistatic

#### Standard application:

**Battledress** 



#### **CHR 215**

Chevron | 215 g/m² | 150 cm | 53% aramid - 47% FR viscose

Standard application:

Features:

Battledress

IR reflection

## FIRE-RETARDANT UNIFORM FABRICS

### MILITARY & POLICE PRODUCT GUIDE



#### **ChTAS 230**

Chevron | 230 g/m² | 150 cm | 99% aramid - 1% antistatic

#### Standard application:

Bunker suit



#### **CHR 240**

Ripstop chevron | 240 g/m² | 150 cm | 50% aramid - 50% FR viscose

Standard application:Features:BattledressIR reflection



#### SecuriT AS 240

Twill 2/1 | 240 g/m² | 150 cm | 40% aramid - 34% modacrylic - 25% cotton - 1% antistatic

#### Standard application:

Technical personnel



#### **SKVAS 260**

Twill 2/1 | 260 g/m² | 150 cm | 50% FR viscose - 48% aramid - 2% antistatic

#### Standard application:

Bunker suit

#### Important:

Colors are provided for information only. They are tailored to the customer's requirements.

## **STRETCH UNIFORM FABRICS**

### MILITARY & POLICE PRODUCT GUIDE



#### **TOR 1990**

Ripstop canvas | 190 g/m² | 150 cm | 60% polyamide - 36% cotton - 4% spandex

#### Standard application:

Battledress



#### **SAVEL 200**

Twill 2/1 | 200 g/m² | 150 cm | 50% aramid - 48% viscose - 2% spandex

Standard application:

Bunker suit

Features:

Inherently fire-retardant



#### **SPCEL 200**

Twill  $\mid$  200 g/m<sup>2</sup>  $\mid$  150 cm  $\mid$  65% polyester - 33% cotton - 2% spandex

#### Standard application:

Everyday service uniform



#### **CCPEL 215**

Twilled | 215 g/m² | 150 cm | 50% cotton - 48% polyester - 2% spandex

#### Standard application:

Everyday service pants

## **STRETCH UNIFORM FABRICS**

## MILITARY & POLICE PRODUCT GUIDE



#### **SPCEL 240**

Twill | 240 g/m<sup>2</sup> | 150 cm | 65% polyester - 33% cotton - 2% spandex

#### Standard application:

**Pants** 



#### **CCPEL 250**

Twilled  $\mid$  250 g/m<sup>2</sup>  $\mid$  150 cm  $\mid$  50% cotton - 48% polyester - 2% spandex

#### Standard application:

Everyday service pants

#### Important:

Colors are provided for information only. They are tailored to the customer's requirements.

# **FOCUS: PRINTING LINE**

#### AN **ECO-FRIENDLY AND FLEXIBLE** INVESTMENT

In 2019, we invested in a rotary printing tool to fully integrate the production of multicolored fabrics for the military procurement sector.

Our production therefore became fully inhouse, from the gray goods to the finished printed fabric. This helped us to secure the quality of our products, as well as to control and guarantee the required confidentiality of our designs and colors for our customers, generally derived from a long and specific development process.

In terms of CSR, insourcing this expertise has cut annual road transport use by 40,000 km, thus significantly reducing our environmental footprint.

Rotary printing is a process whereby the fabric passes underneath etched rotating cylinders. They are positioned in a row, depending on the color depth, on a long horizontal table with a conveyor.

The fabric is placed on the conveyor and passes underneath each rotating cylinder. Each cylinder has a specific decor and color. The automatically fed colored printing paste is placed on the fabric, at a specific pressure, through the cylinder holes.



The printed fabric then goes through drying chambers before being stored in rolls, pending further processes.

This printing process is ideal for large volumes.

## **CERTIFICATIONS - LABELS**

& COMMITMENTS

## 100% ethical

With our commitments and certifications, we strive on a daily basis to improve our environmental footprint so that you can improve yours.



Testé substances nocives. www.oeko-tex.com/standard100



















## SUSTAINABLE GOALS































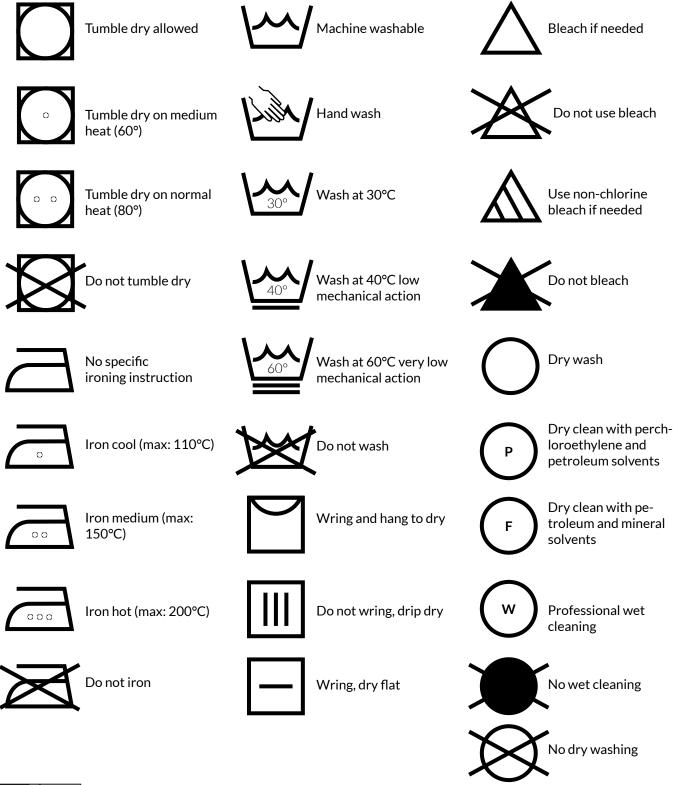






## **CARE GUIDELINES**

CAREFUL GARMENT CARE WILL OPTIMIZE FABRIC APPEARANCE, PROTECTIVE PERFORMANCE AND LIFE CYCLE.





**ISO 15797** the ISO 15797 standard sets out washing and finishing procedures for work wear. It is the reference standard to qualify the behavior of work wear intended to be laundered industrially. It simulates the washing and drying (tumble dryer and tunnel) in laundries. After the washing processes, the performances such as pilling, dimensional stability and color resistance are assessed.

# CHOOSE TEXTILE EXCELLENCE







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