



STED SHIED!

Stedshield® FR micro perforated, is ENGINEERED so the size of its laser cut pores is only in the micron range, which makes the coating permeable to air, water and vapor at the same time, without substantially affecting the original performances.



## Comfort

In order to reduce the heat stress Stedshield® FR micro perforated is:

### AIR PERMEABLE

ASTM D737 10 ft<sup>3</sup>/min/ft<sup>2</sup>

### HEAT DISSIPATION

THL 275

## Protection

In order to offer a high level of protection Stedshield® FR micro perforated offers:

#### VAPOR RELEASE

The micropores are allowing vapor to be released hence protecting the body from steam burn injuries.

### FLAME RESISTANCE

Outstanding flame resistance due to the 100% Para-aramid coated fabric.

### THERMAL PROTECTION

Outstanding thermal resistance due to the 100% Para-aramid coated fabric.

## Durability

Stedshield® FR micro perforated is specifically engineered for reinforcement areas of turn out gear requiring high mechanical performances, such as:

#### STRENGTH

The 100% Para-aramid fabric offers high tear and break resistance.

### ABRASION RESISTANCE

The synthetic rubber coating offers abrasion resistance, proven over the years.

#### **FLEXIBILITY**

The fabric and coating remain flexible to both hot and cold climates.



# SPECIFICATION

### Specialty Formulated Synthetic Rubber coated Para-aramid

	NFPA 1971-2018 Requirements	Stedshield® FR
<b>Weight</b> ASTM D-3776		18.9 opsy 640 g/m²
Air Permeability ASTM D737-18		10 ft <sup>3</sup> /min/ft <sup>2</sup>
<b>Total Heat Loss</b> ASTM 1868-17 part C		275 w/m <sup>2</sup>
Flame Resistance ASTM 6413	After flame: 2 sec maximum Char length: 4 inch maximum no drip, no melt	After flame  Initial W: 0.9 sec. F: 0.6 sec.  5W W: 1.1 sec. F: 1.0 sec.  Char length  Initial W: 0.08 in. F: 0.04 in.  5W W: 0.08 in. F: 0.04 in.
Resistance to Abrasion ASTM D- 3884		3000 cycles minimum
<b>Tearing Strength</b> ASTM D-5587		W : 15 lbs F : 15 lbs
<b>Thermal Shrinkage</b> NFPA 1971-2018	10% maximum	Initial W: 0.09% F: 0.06% 5W W: 0.03 % F: 0.09%
	EN469/EN15614 Requirements	Stedshield® FR
Flame Spread EN ISO 15025:2003-02 Procedure A	No afterglow No occurrence of debris No formation of hole Mean After flame < 2 secs	No afterglow No occurrence of debris No formation of hole Mean After flame = 0 secs
Heat Resistance EN ISO 17493:2000 180°C for 5 mins After 5 wash-dry cycles	Materials shall not ignite or melt Shrinkage % < 5	No melt, drip, separation or ignition Shrinkage % L= 0.1 W= 0.2

Note: These measurements cannot be used for acceptance of commercial shipments.



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