



# Mercedes Textiles Limited

"Flowing with Technology"

**Forestflo®**

Self-protecting (Percolating) Cotton / Synthetic Forestry Hose

300 PSIG / 2070 kPa Service Pressure

Superior Performance & Durability

5838 Cypihot  
Saint Laurent, Quebec  
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Tel : 514-335-4337  
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**COTTON / SYNTHETIC BLENDS FOR ADDITIONAL HEAT PROTECTION, PLUS OUR HYDRO-WICK® SELF PERCOLATING PROCESS. A ULC APPROVED WEeping HOSE.**



## Applications

- ▶ Forestry Light Weight, Self-protecting Attack Hose

## Features and Benefits

- ▶ Uses our patented Hydro-Wick® Weeping process which weaves the yarn through the liner producing a "Wick" effect to dampen the hose jacket. This "Wick" effect results in considerable less pressure loss due to Weeping and also eliminates clogging, as compared to the needle prick process used by our competitors.
- ▶ Remarkably light and compact in spite of it's heavy duty construction, because of the cotton blending technology.
- ▶ Our Patented Mertex® lining process produces an amazingly thin but smooth inner waterway, yielding an extremely low friction loss for maximum flow.
- ▶ Standard treatment of cotton jacket includes anti-fungal & anti-microbe as per ULC S518/S519 & CGSB CAN2-4.2 method 28.3.
- ▶ Resistant to most chemicals, petrol products, ozone & U.V. exposure, hydrolysis, and rot & mildew.
- ▶ Meets or exceeds all performance requirements of NFPA 1961, U.L.C S518-M90, and ULC 400° C Hot Block test.

## Patented Mertex® Lining Process

- ▶ Welds the lining directly to the textile while the hose is being woven.
- ▶ Locks fibers together for greater strength while still allowing for a high flexibility.
- ▶ Creates a virtually inseparable bond without the use of adhesives. Huge advantage over competitors.
- ▶ Yields an extremely low friction (pressure) loss because the Mertex® process fills the corrugations of the weave, which creates an amazingly thin and smooth waterway.
- ▶ Mertex® lined hose produces lower elongation under pressure. This means less pull back when water is suddenly shut-off, resulting in a safer hose to work with.
- ▶ Permits manufacturing to special lengths. Consult factory for details.

## Patented Hydro-Wick® Weeping Process

- ▶ Our patented Hydro-Wick® Weeping process is achieved by weaving the yarn through the liner which produces a "Wick" effect to dampen the hose jacket.
- ▶ This "Wick" effect results in considerable less pressure loss due to weeping and also eliminates clogging, as compared to the needle prick process used by our competitors.
- ▶ The resulting wet jacket provides excellent protection against heat, i.e., such as in forest fire applications.



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## Bid Specifications

### How to Specify Forestflo®

#### Scope:

- ▶ Hose manufactured to this specification shall be of superior quality in both workmanship and raw materials. Within the scope of a single jacket construction the hose shall be resistant to wear and tear. The hose shall not deteriorate from the effects of aging.

#### Construction and Features:

- ▶ The hose shall be of single jacket construction.
- ▶ The jacket shall be made with 100% virgin spun cotton and filament polyester warp yarn and high tenacity filament polyester filler yarn tightly woven in twill weave.
- ▶ The hose outer jacket shall have a minimum filler yarns of 12.7 per inch (500 per Meter)
- ▶ The hose shall be resistant to most chemicals and petrol products, rot & mildew, hydrolysis, and resist deterioration due to exposure to UV-rays and ozone.
- ▶ The hose shall be self-protecting by percolating just the right amount of water through the jacket for even protection along its entire length. This Weeping process shall be achieved by weaving the yarn through the liner thus producing a "Wick" effect to dampen (wet) the hose jacket.

#### Performance:

- ▶ The hose, in all sizes, shall have minimum service, test, and burst pressures as specified in the Technical Chart. Hoses which do not meet these minimum pressures, shall not be considered as meeting this specification.
- ▶ The 1 1/2" (38 mm) hose shall be capable of flowing 70 US GPM (264 LPM) with a maximum pressure loss of 10 PSIG (69 kPa) per 100' (30.48M). A hose with a friction loss greater than this shall not be considered as meeting this specification.
- ▶ The hose jacket shall be highly abrasion resistant, highly flexible, and very snag resistant.
- ▶ There shall, be no defects, dirt, knots, lumps or other irregularities affecting the performance of the hose.
- ▶ Twisting and warping shall be at least 100% better than required, by the applicable NFPA standards.
- ▶ The hose shall not rise up from the test surface.

#### Lining:

- ▶ The hose lining shall have excellent resistance to most chemicals, petrol products, ozone and U.V.
- ▶ The thermoplastic lining material used for this specification shall have a flawless record in the fire hose industry.
- ▶ The hose jacket shall be lined by the patented Mertex® method without the use of adhesives or backing material, to lock the fibers in place. The lining material in its molten state shall fill the corrugations of the weave fusing to every warp and filler thread and provide a very smooth and low friction waterway. No adhesive or backing material shall be used to bond the lining and it shall yield maximum flow with minimum friction loss. An inner hose manufactured by inverting an exterior coated hose shall not be considered as meeting this specification. Hose manufactured with the use of adhesives or backing for bonding the liner, or hose made with rubber liners shall not be considered as meeting this specification.

#### Treatment:

- ▶ The exterior cotton jacket shall be treated with anti-fungal/ anti microbe as per ULC S518/S519 and CGSB CAN2-4.2 method 28.3, to resist rot and mildew.

#### Standards:

- ▶ The hose shall be ULC approved and can be labeled upon request in the sizes specified\*
- ▶ Fire hose manufactured to this specification shall meet or exceed all performance requirements of NFPA 1961, U.L.C S518-M90, and ULC 400°C Hot Block test.
- ▶ The hose outer jacket shall have a minimum filler yarns of 12.7 per inch (500 per Meter)

#### Technical Chart

Hose Spec	Trade Size		Bowl Size		Wt. 100' (30.5M) Un-coupled		Coil Diameter 100' (30.5M)		Service Pressure		Proof Pressure		Burst PSI	Pressure kPa
	In.	mm	In.	mm	Lbs	Kg	In.	Cm.	PSI	kPa	PSI	kPa		
762	1.00	25	1 5/32	29	8.5	3.9	15.0	38.1	300	2,070	600	4,140	850	5,860
707	1.5*	38*	1 11/16	43	12.0	5.5	15.0	38.1	300	2,070	600	4,140	850	5,860