



Mercedes Textiles Limited

"Flowing with Technology"

Niagara®

**Industrial Fire Fighting Hose
Premium all Synthetic, Single Jacket Fire Hose
250 PSIG / 1725 kPa Service Pressure**

5838 Cypihot
Saint Laurent, Quebec
Canada, H4S 1Y5
Tel : 514-335-4337
Fax : 514-335-9633

OUR MOST RUGGED SINGLE JACKET "ALL PURPOSE / EVERYDAY USE" INDUSTRIAL / FORESTRY / MUNICIPAL FIRE HOSE.



Applications

- ▶ Cabinet / Reel Fire Hose
- ▶ Marine Fire Hose and RV Potable Water (when specified potable water)
- ▶ Public Works, Parks (Hockey Rinks, Swimming Pools, etc)
- ▶ Potable Water Transfer Hose (Stenciled)
- ▶ De-Contamination & Wash Down Hose
- ▶ High-Rise Hose Kits, Supply Hose
- ▶ Urban Interface, Forestry, Grass Fire Kits, Supply Hose

Features and Benefits

- ▶ Tough and ready for action but light in weight.
- ▶ Strong, compact and practical, and will fit on most hose storage devices.
- ▶ Our Patented Mertex® lining process produces an amazingly thin but smooth inner waterway, yielding an extremely low friction loss for maximum flow.
- ▶ Available with Permatek™ HP treatment in a variety of colors, for even greater visibility & abrasion resistance. This treatment also greatly reduces moisture absorption through the jacket.
- ▶ Resistant to most chemicals, petrol products, ozone & U.V. exposure, hydrolysis, and rot & mildew.
- ▶ Will remain flexible to -65° F (-55° C).
- ▶ Meets or exceeds all performance requirements of NFPA 1961, Underwriter's Laboratories & Factory Mutual
- ▶ Factory Mutual approved and can be FM labeled in the sizes specified**.

Patented Mertex® Lining Process

- ▶ Welds the lining directly to the textile while the hose is being woven.
- ▶ This allows the use of high strength Filament Polyester yarn to be used, due to the Mertex® process superior liner adhesion.
- ▶ 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.
- ▶ Mertex® Patented process >> Canadian patent # 1,295,104, plus 15 other countries

Permatek™ Treatment

- ▶ Available in the following Colors : Yellow(Y), Blue(B), Green(G), Red(R), Orange(O), Black(K), Tan(T), and Clear C.
- ▶ Locks fibers together for greater strength, reduces water pickup and absorption.
- ▶ Provides protection against abrasion.
- ▶ Provides resistance to Petroleum products and Ozone.
- ▶ Provides for shorter drying times.



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Bid Specifications How to Specify Niagara®

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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 high tenacity filament polyester yarn in both the warp and weft directions, to provide maximum strength to weight ratio.
- ▶ The jacket shall be woven in a tight twill weave to yield maximum abrasion resistance.
- ▶ The hose outer jacket shall have a minimum filler yarns of 11.5 per inch (453 per Meter)
- ▶ The hose shall be available in any of eight colors listed with our Permatek treatment, upon request.
- ▶ 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.

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 hose shall have a maximum flow with minimum friction loss.
- ▶ There shall, be no defects, dirt, knots, lumps or other irregularities affecting the performance of the hose.
- ▶ The hose must resist kinking and remain flexible to -65°F (-55°C).
- ▶ 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 hose lining shall be capable of being approved for potable water, when so ordered.
- ▶ 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:

- ▶ When requested, the jacket shall be Permatek® treated for greater abrasion resistance, improved visibility & reduced moisture pick-up.

Standards:

- ▶ Fire hose manufactured to this specification shall meet & exceed all performance requirements of NFPA 1961, Underwriter's Laboratories & Factory Mutual.

Technical Chart

Hose Spec	Trade Size		Bowl Size		Wt. 100' (30.5M) Un-coupled		Coil Diameter 100' (30.5M)		Service Pressure		Proof Pressure		Burst Pressure	
	In.	mm	In.	mm	Lbs	Kg	In.	Cm.	PSI	kPa	PSI	kPa	PSI	kPa
612	1.00	25	1 5/32	29	7.4	3.4	15.0	38.1	250	1 725	500	3 450	750	5 175
613	1.5*	38*	1 3/4	44	14.4	6.5	15.0	38.1	250	1 725	500	3 450	750	5 175
615	1.75*	44*	1 15/16	49	16.0	7.3	16.0	40.6	250	1 725	500	3 450	750	5 175
616	2.00*	51*	2 3/16	56	16.6	7.5	16.0	40.6	250	1 725	500	3 450	750	5 175
617	2.5*	64*	2 3/4	70	26.6	12.1	16.5	41.9	250	1 725	500	3 450	750	5 175
646	2.75	70	2 7/8	73	26.6	12.1	16.5	41.9	250	1 725	500	3 450	750	5 175
618	3.00*	76*	3 3/16	81	29.0	13.2	17.0	43.2	250	1 725	500	3 450	750	5 175
619	4.00	102	4 3/16	106	36.0	16.4	18.0	45.7	200	1 375	400	2 750	600	4 140
645	5.00	127	5 3/16	132	46.0	20.9	18.0	45.7	200	1 375	400	2 750	600	4 140
649	6.00	152	6 3/16	157	66.0	30.0	18.0	45.7	150	1 031	300	2 063	500	3 450