

# PAC-LITE

DOUBLE JACKET PU LINED ATTACK HOSE

MATEX<sup>®</sup>  
hose

Meets all the requirements of  
NFPA 1961 Standard on Fire Hose

- LIGHTWEIGHT all polyester double jacket polyurethane lined attack hose
- **Exclusive** PU Based color coating to aid abrasion resistance and color leaching
- Reverse twill inside jacket for ultra-smooth liner surface
- Designed for 100 PSI nozzle applications and lightweight carry-up applications
- Meets and exceeds NFPA 1961 standards
- Meets and exceeds NSF 61 for potable water use
- Meets and exceeds UL-19 standards
- Temperature range: -30 F to 112 F
- 10 Year manufacturer warranty
- Minimum 1200 psi Burst strength
- Colors: Red, Yellow, Blue, Black, Green, Tan, Orange, Clear
- Lengths available to 100'
- Diameters: 1", 1 1/2", 1 3/4", 2", 2 1/2", 3", 3 1/2", 4", 5"
- Lifetime Warranty against tube delamination



Made in the U.S.A.

**QUALITY:** The fire hose to be supplied under this specification is a premium quality, double, jacket municipal fire hose. All materials used in the fabrication of the hose shall be of the best quality commercially available. The weaving, curing, assembly and testing of the Pac-Lite hose shall be made in the USA.

**JACKET:** The jackets shall be evenly and firmly woven, free from unsightly defects, dirt, knots, lumps, irregularities or twist that might affect the serviceability of the finished product. Each jacket shall be seamless and shall have polyester filler yarns woven around the hose throughout its length, with the warp ends interwoven with the warp yarn covering the filler yarns. Warp ends of both the inner and outer jackets shall be spun staple polyester developed, designed and processed for the fire hose jacket warp yarns. The use of nylon, polyamide, or rayon yarns used in the warp or filler direction is not allowed. The use of any warp yarns of filament or entangled construction is expressly forbidden. Filler yarns of both the inner and outer jackets shall be high-tenacity filament polyester developed, designed, and processed for the fire hose jacket filler yarns. These filament polyester yarns shall be free from defects that are unsightly or may affect the serviceability of the finished hose. The staple polyester warp ends must completely cover and protect the filament polyester filler yarns. The inner jacket shall be of reverse twill weave, to allow for a smooth waterway. The jackets shall be constructed with a high pick count "anti-whipping" design exclusive to Matex Hose.

**IMPREGNATION:** The color impregnation is applied to the outer jacket by a mechanical process which increases abrasion resistance by 6 times over standard impregnation. It greatly increases heat and flame resistance, almost eliminates water pickup and adds superb resistance to petrochemicals and displays extreme resistance to bacterial and mildew growth.

**COLORS:** yellow, orange, blue, forest green, lime green, red, tan and black

**LINING:** The lining shall be a single ply extrusion of ether-based, super high tensile polyurethane, highly resistant to electrolysis creating a thin wall surface to reduce weight for the total hose length. Minimum tensile strength shall be 7000 psi on a 1 1/2" strip. Matex Pac-Lite carries a lifetime warranty against liner delamination.

**ADHESION:** The adhesion shall be such that the rate of separation of a 1 1/2" strip of lining, transversely cut, shall not be greater than 1" per minute under a weight of 18 lbs. No Exceptions. Thickness of liner and adhesive shall not exceed 0.025" for 1" through 2 1/2" hose, and 0.030" for 3", 4" and 5" hose.

**LOW TEMPERATURE FLEXIBILITY:** The hose shall be capable of performing in sub-zero conditions. A 3-foot section of hose shall be exposed to a temperature of -54° + / - 2°C (-65° + / -3° F) for a period of 24 hours. At the end of the exposure period, and while maintained at the -55°C exposure temperature, the hose shall be rapidly bent 180° double on itself, first one way and then the other. There shall be no cracking or breaking of the jacket or liner. Leakage shall be cause for rejection.

**HYDROSTATIC TEST:** Hydrostatic tests shall be conducted on hose equipped with the couplings to be delivered in accordance with NFPA 1961. Each length of hose is to be subjected to a hydrostatic proof test pressure of 800 psi for at least 15 seconds and not more than 1 minute. Higher test pressures which may weaken the hose are expressly forbidden. Twist: The hose shall not twist more than 4-1/4 turns per 50 ft. for the 1 1/2", 1 3/4", and 2" sizes, and not more than 1 3/4 turns per 50 ft. for the 2 1/2" and 3" sizes under a pressure of 800 psi. Twist for 4" and 5" shall not exceed 1 1/2" turns at 600 psi. No final twist in a direction to loosen the couplings shall be permitted.

**WARP:** The hose shall not warp more than 20" from a straight line drawn from center to center of the fittings at the ends of the hose, and the hose shall not rise from the table.

**EXPANSION:** The expansion in circumference of the hose between 10 and 800 psi shall not exceed 8%.

**ELONGATION:** The elongation between 10 and 800 psi shall not exceed 8% for the 1 1/2", 1 3/4", 2" and 2 1/2" sizes, and shall not exceed 10% for the 3", 4" and 5" size.

**BURST TEST:** A 3-foot sample of hose chosen at random shall stand without failure a hydrostatic pressure of 1200 psi while lying straight or curved on a 27" radius for all diameters less than 3". Burst for 4" and 5" shall be a minimum of 900 psi. Retention of the coupling to the hose shall equal or exceed the burst pressure.

**KINK TEST:** A full length shall withstand, while kinked, without failure, a hydrostatic pressure of 400 psi.

**WARRANTY:** The fire hose furnished under the terms of this proposal has a potential service life of ten years, barring mistreatment or accidental damage that would render the hose unfit for service. The manufacturer warrants the hose to be free from defects in materials and workmanship for a period of ten years. This warranty shall provide for the repair or replacement of hose and couplings proven to have failed due to faulty material or workmanship.

INSIDE DIAMETER	THICKNESS	WEIGHT/ FT. UNCOUPLED	WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
1"	1 5/16"	.14 lbs.	400 psi	800 psi	1200 psi
1 1/2"	1 15/16"	.23 lbs.	400 psi	800 psi	1200 psi
1 3/4"	2 1/8"	.28 lbs.	400 psi	800 psi	1200 psi
2"	2 2/5"	.31lbs.	400 psi	800 psi	1200 psi
2 1/2"	3"	.42lbs.	400 psi	800 psi	1200 psi
3"	3 1/2"	.56lbs.	400 psi	800 psi	1200 psi
3 1/2"	4"	.60lbs.	400 psi	800 psi	1200 psi
4"	4 1/2"	.75lbs.	300 psi	600 psi	900 psi
5"	5 1/2"	.95lbs.	300 psi	600 psi	900 psi