



TENCATE
Quantum3D[®]
 2-Layer

FACE CLOTH: GoldCheck™ pattern, 100% NOMEX® fiber (spun/filament)
BATT: 1 layer of 3D + 1 flat layer spunlace; fiber composition NOMEX®/KEVLAR® fiber
QUILT THREAD: Aramid
WEIGHT: 7.7 oz (sq yd)
COLOR: Gold

QUANTUM3D® takes thermal barrier technology to an entirely new level. Its patent-pending process design provides better insulation and moisture management. And, its slick face cloth provides ease of movement and greater flexibility.

- **Thermal Protection**—Combined with any Southern Mills turnout gear outer shell, Quantum3D improves composite performance by delivering a 2-4 point higher TPP rating than CALDURA® SILVER SL2 — with no decrease in THL.
- **Maximum Flexibility**—Twice as flexible as other leading barriers. Thin and lightweight (7.7 oz/yd²) with an easy on/off slick face cloth.
- **Moisture Management**—WICKWELL™ Plus technology moves perspiration away from body, spreads moisture for improved dissipation and unmatched wickability.
- **Durability & Wear Life**—Outstanding pilling resistance. Maintains three-dimensional and physical integrity after laundering and abrasion.
- **PEAK PERFORMANCE SYSTEM™**—Because of QUANTUM3D's superior performance it has been selected as the thermal barrier component for the PEAK PERFORMANCE SYSTEM.

QUANTUM3D delivers peace of mind when lives are on the line. Only by Ten Cate Southern Mills.

PHYSICAL PROPERTIES	QUANTUM3D® 2-Layer	NFPA 1971-2007 Edition Requirements
Trapezoidal Tear Strength (lbs) Initial (warp x fill) After 5 launderings (warp x fill)	ASTM D 5587 80 x 70 75 x 65	5.0 min
Thermal Protective Performance (cal/cm²) TPP with MILLENIA™ XT, Crosstech® Type 2c TPP with GEMINI™ with Matrix® Technology, Crosstech® Type 2c	NFPA 1971-2007 38 - 41 38 - 41	35.0 min 35.0 min
Total Heat Loss (W/m²) THL with MILLENIA™ XT, Crosstech® Type 2c THL with GEMINI™ with Matrix® Technology, Crosstech® Type 2c	NFPA 1971-2007 260 - 280 260 - 280	205 min 205 min
Heat Resistance	NFPA 1971-2007 Pass	Shall not melt, separate or ignite
Vertical Flammability Char Length in inches (warp x fill) (Initial) Char Length in inches (warp x fill) (After 5 launderings) After Flame in seconds (warp x fill)	ASTM D 6413 <1.5 <1.0 <0.5	4.0 max 2.0 max
Thermal Shrinkage (%) 500°F at 5 minutes (warp x fill) After 5 launderings (warp x fill)	NFPA 1971-2007 < 1.0 x < 1.0 < 1.0 x < 1.0	10.0 max 10.0 max
Laundry Shrinkage (%) After 5 launderings (cotton sturdy cycle) (warp x fill)	AATCC 135 < 5.0 x < 5.0	5.0 max



Plant Ray is a ISO-9001-2000 Certified Facility



The Most Trusted Name In Protective Fabrics.

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