

TenCate Protective Fabrics
Kombat™ Flex Powered by PBI®
Data Sheet

GENERAL ATTRIBUTES

Nominal Weight.....6.9 osy (235 gsm)
Construction.....Woven (Twill)
Colors.....Natural Gold & High-Resolution Black
Made in America.....Yes
Fiber Content.....PBI® & DuPont™ Kevlar®
Finish.....Super Shelltite™
Features.....PBI-Protected DuPont™ Kevlar® Filament Reinforcement
Certification(s).....NFPA 1971 (2013 & 2018 Editions)

FLAME RESISTANCE

Vertical Flame: After Flame (NFPA 1971, warp x fill)
Initial.....0 x 0 sec
After Wash (5X).....0 x 0 sec
Vertical Flame: Char Length (NFPA 1971, warp x fill)
Initial.....< 0.2 x < 0.2 in (< 5.0 x < 5.0 mm)
After Wash (5X).....< 0.4 x < 0.4 in (< 10.0 x < 10.0 mm)
Thermal Shrinkage (NFPA 1971)
Initial.....< 1.5 percent
After Wash (5X).....< 2.5 percent
Thermal Protective Performance (NFPA 1971)
Quantum4™ & Gore® Crosstech® Black.....41 - 43
Quantum4™ & Stedair® Gold.....39 - 41
Quantum3D® SL2 & Gore® Crosstech® Black.....44 - 46
Caldura® ELITE with Nomex® Nano & Gore® Crosstech® Black.....36 - 38
Caldura® ELITE with Nomex® Nano & Stedair® Gold.....36 - 38
Caldura® ELITE SL2 & Gore® Crosstech® Black.....39 - 41
Defender® M SL2 & Gore® Crosstech® 3-Layer.....46 - 48
Defender® M SL2 & Gore® Crosstech® Black.....42 - 44
Total Heat Loss (NFPA 1971)
Quantum4™ & Gore® Crosstech® Black.....250 - 270
Quantum4™ & Stedair® Gold.....230 - 250
Quantum3D® SL2 & Gore® Crosstech® Black.....245 - 265
Caldura® ELITE with Nomex® Nano & Gore® Crosstech® Black.....300 - 320
Caldura® ELITE with Nomex® Nano & Stedair® Gold.....285 - 305
Caldura® ELITE SL2 & Gore® Crosstech® Black.....245 - 265
Defender® M SL2 & Gore® Crosstech® 3-Layer.....210 - 230
Defender® M SL2 & Gore® Crosstech® Black.....205 - 225
Heat Resistance (NFPA 1971)Pass

PHYSICAL TESTING

Trapezoidal Tear (NFPA 1971, warp x fill)
Initial.....60 x 60 lbf (265 x 265 N)
After Wash (5x).....55 x 55 lbf (245 x 245 N)
Tensile Strength (NFPA 1971, warp x fill)
Initial.....275 x 275 lbf (1,220 x 1,220 N)
After Wash (10x).....270 x 270 lbf (1,200 x 1,200 N)

(continued)

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COMFORT

Flexibility (Shirley Stiffness Test, ASTM D 1388)

Initial.....1,617
After Wash (5X).....733

Lower is better. Average 7.2 oz traditional ripstop outer shell earns more than 4,000 in initial stiffness testing and about 1,000 after five launderings. Compared to TenCate Gemini™ XT, Kombat™ Flex is almost 30 percent more flexible.

Water Absorption (AATCC 42)

Before Wash.....< 2.0 percent
After Wash (5X).....< 5.0 percent

COMPOSITES SUMMARY

Breathability Performance

- Caldura® ELITE with Nomex® Nano & Gore® Crosstech® Black
- Caldura® ELITE with Nomex® Nano & Stedair® Gold

Balanced Performance

- Quantum3D® SL2 & Gore® Crosstech® Black
- Quantum4™ & Gore® Crosstech® Black
- Quantum4™ & Stedair® Gold
- Caldura® ELITE SL2 & Gore® Crosstech® Black

Thermal Performance

- Defender® M SL2 & Gore® Crosstech® 3-Layer
- Defender® M SL2 & Gore® Crosstech® Black

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