

**TenCate thermal barrier with thermal liner:
CQ 705 – 210 g/m²**

Better thermal protection & excellent moisture management

This fabric for fire fighter turnout gear is a combination of a thermal barrier and a thermal liner. The thermal barrier is engineered with a patented non-woven 3-D imaged spunlace technology which provides better insulation and durable moisture management. Due to the slick thermal liner it provides ease of movement and greater flexibility.

Better protection – The fabric offers better thermal protection than comparable thermal barriers in the same weight class, due to 3-D imaged spunlace nonwoven technology.

Transports perspiration away from skin – The inherent wicking technology of this TenCate liner technology moves perspiration away from body and spreads moisture for improved dissipation and unmatched wickability.

Outstanding comfort – The most flexible thermal barrier on the market; thin and ultra light (210 g/m²).

Highly durable – Superior resistance to pilling. It maintains 3-D imaged spunlace and physical integrity after laundering and abrasion.




Long lasting looks – Submitted to an extensive range of washing and wearing tests at independent testing institutes.

Enhanced ease of movement – The slick surface provides ease of movement and a fire fighter can easily put on or take off his turnout gear.

Lightweight system – This thermal liner is also used in TenCate Millenia™ – 530 system – one of the lightest and strongest systems for fire fighter turnout gear.

These fabrics are made by TenCate Protective Fabrics, the largest supplier of FR fabrics in the world.



Technical data	TenCate thermal barrier	Test method	Standard colour
Quality	CQ 705		 <p>The colour above is a standard colour and available with a minimum order length of 100 metres. The colour shown is a reference only.</p>
Width	153 cm (±2,5 cm)	ISO 22198: 2006	
Weight	210 g/m ² (± 5%)	ISO 3801: 1977	<p>* Test result from initial testing. Data ranges may change as more data are acquired. ** Copyright symbols: NEN, Delft (Netherlands) *** After pre-treatment (five wash/dry cycles according to EN ISO 6330: 2000. Procedure 2A (60°C) with tumble drying (Procedure E) (max. 70 °C outlet temperature). **** As received ***** Tested in a 3-layer system of TenCate.</p>
Composition	Thermal barrier: 3-D imaged spunlace non-woven - meta-aramid/para-aramid Thermal liner: GoldCheck™ patterned facecloth Kevlar filament and FR rayon/para-aramid/nylon, spun yarns		
Tensile strength *	500 N x 3000 N	ISO 13934-1: 1999 ISO 12947-2: 2002	
Pilling*	4/5	ISO 12945-2: 2000	
Protection	Thermal barrier for firefighters turnout gear	ISO 12945-1: 2000	
PPE** requirements			
Domestic laundering			
Certification			
	 Firefighting	EN 469: 2005	

Summary of results EN 469: 2005					
Property	Test method	EN 469: 2005 requirements		Results obtained	PASS/level
6.1 Flame spread	EN ISO 15025: 2002 Procedure A	EN 533 index 3: No flaming to edge - No hole formation - No flaming or molten debris - Mean afterflame ≤ 2s - Afterglow not to spread		EN 533 index 3: No flaming to edge - No hole formation - No flaming or molten debris - No afterflame - No afterglow	PASS***
6.2 Heat transfer (flame)	EN 367: 1992	Level 1 HTI ₂₄ ≥ 9,0 HTI ₂₄ - HTI ₁₂ ≥ 3,0	Level 2 HTI ₂₄ ≥ 13,0 HTI ₂₄ - HTI ₁₂ ≥ 4,0	Level 2 HTI ₂₄ = 20,4 HTI ₂₄ - HTI ₁₂ = 5,6	Level 1*** and *****
6.3 Heat transfer (radiation)	EN ISO 6942: 2002 Method B at 40kW/m ²	Level 1 RHTI ₂₄ ≥ 10,0 RHTI ₂₄ - RHTI ₁₂ ≥ 3,0	Level 2 RHTI ₂₄ ≥ 18,0 RHTI ₂₄ - RHTI ₁₂ ≥ 4,0	RHTI ₂₄ = 30,3 (based on lowest result) RHTI ₂₄ - RHTI ₁₂ = 9,6	Level 1*** and *****
6.5 Heat resistance	ISO 17493: 2000 at 180 °C	Materials shall not ignite or melt Shrinkage ≤ 5%		Material did not ignite or melt. Max. Shrinkage: 0.8%	PASS****
6.9 Dimensional change	ISO 5077: 1984	Max ± 3% (- = shrinkage)		Warp: -2,2% Weft: -0,4%	PASS***


TenCate Protective Fabrics

TenCate is the world's No. 1 producer of protective fabrics for the manufacturing of safety wear. We supply garment-makers with an extensive range of top-quality and technologically advanced fabrics.

Our fabrics become lifesaving garments for firefighters, industrial workers, military personnel and other professionals working under hazardous conditions in danger zones around the world.

We work closely with our customers, end-users, fibre and chemical manufacturers and independent laboratories. As a result, TenCate Protective Fabrics is the one source the world looks to for leadership in knowledge of materials, consistent product quality, and a proven commitment to service excellence.

TenCate is a trademark of Royal Ten Cate nv. Millenia is a trademark of Ten Cate Protect bv. Ten Cate Protect bv is a subsidiary of Royal Ten Cate nv.



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