



The Ultimate Cut Protection™

Technical Data Sheet

Product Description:

Cut-TeX® PRO is an ultra-high cut resistant fabric, made from an innovative combination of ultra-high molecular weight polyethylene (UHMWPE) and other technical fibres weaved by special high-density knitting machines.

Cut-TeX® PRO is manufactured at a UK based ISO 9001:2008 quality standard controlled manufacturing facility.

Key Applications

Cut-TeX® PRO has countless potential applications.

It is primarily being used to create slash resistant clothing, effectively helping to protect frontline professionals working within hostile environments, such as prisons, correctional facilities, homeland security and policing, from laceration, subsequent rapid blood loss and death.

Additional key sectors for cut resistant clothing made from Cut-TeX® PRO are flat glass handling, metal sheet pressing, recycling, automotive and similar industries.

Due to the exceptional tear resistance of Cut-TeX® PRO, this fabric is also being used to manufacture tear and bite resistant clothing for mental health care facilities and secure hospital facilities around the world, as well as schools specialised in severe learning disabilities, challenging behaviour, special needs and autism. Even if Cut-TeX® PRO cannot stop the often severe bruising caused by a human bite, the fabric will eliminate the risk of potentially severe infections following the penetration of the skin by a human bite.

Most recently, Cut-TeX® PRO has been used to create cut resistant seating for public transport, cut resistant back packs and cases for travellers, and protective clothing for animals.

Many other tests around the world are currently conducted to establish additional potential applications.

Standards Width & Length of Fabric Roll

- Cut-TeX® PRO fabric is knitted on a circular machine, resulting in a tube of material, measuring 80cm flat width (160cm cut open).
- Our Cut-TeX® PRO fabric will be supplied as a tube of material.
- Each roll is 25 metres in length (40 square metres).

American Dimensions

- Cut-TeX® PRO is knitted on a circular knitting machine, hence it comes in a roll (tunnel shape) measuring 25 linear meters (82.021 feet) in length.
- The flat width is 80cm (31.4961 inches), when cut open it equals to 1.60 meters (62.9921 inches).
- Total area of 1 x Roll of Cut-TeX® PRO equates to 40 sqm (430 sqft).

Fabric Weight

- 447gsm (grams per square metre).

Gauge

- 12

Protection Levels

- ANSI/ISEA 2016 Blade Cut Resistance Level A5 = 2681 grams/force
- EN 388:2016 Abrasion Resistance Level 3 = More than 2,000 cycles
- EN 388:2003 (coupe test) Cut Resistance Level 5
- EN 388:2016 Tear Strength Level 4
- EN 388:2016 Puncture Resistance Level 4
- EN ISO 13997 (TDM-100 Test) Cut Resistance Level E

After Washing Test Report

On 16th April 2018, the following test was conducted at an independent test facility:

- A sleeve made from 100% Cut-TEX[®] PRO was washed/laundered in 5 x 40C washes, 5 x 155-160C drying finishes and conditioned for 24 hours at 23+/-2oC and 50+/-5%RH
- Following the above the BS EN 388:2016 Cut Resistance Level: Level E

Appearance

Cut-TEX[®] PRO is available in one standard colour: 'Grey Marl'

Additional Information

- Cut-TEX[®] PRO has been washed in TEN Durawash twin-tub industrial machines. This is equivalent to 50 washes in a domestic washing machine. The cut resistance level, following this washing process has INCREASED by 4%. Test reports from INTERTEK are available upon request.
- Cut-TEX[®] PRO is NOT bleach resistant.
- Cut-TEX[®] PRO is a yarn dyed fabric.
- Cut-TEX[®] PRO is NOT fire retardant, but it can be treated with any high-quality flame-retardant spray/wash.
- The supply/purchase of Cut-TEX[®] PRO may be subject to a license agreement.
- For intellectual property/copyright reasons, our high-performance fabric cannot be marketed or sold under the name Cut-TEX[®] PRO in Germany.

Working with Cut-TEX[®] PRO

Cutting of Cut-TEX[®] PRO

- We recommend the following cutting machines:
- Hoffman HF125P Rotary Cutting Machine
- Hoffman HF-195S Straight Cutting Machine
- Or CNC cutting for high volumes.

Sewing Needle Type

- We recommend Groz-Beckert RG tip needles to sew Cut-TeX® PRO.
- Thickness of the needle: we recommend 90 thick.

Thread Type

- We recommend Amann's thread (model: Saba 80).

Would you please describe the equipment you use for these operations?

- We recommend overlock Juki machines with cutting knife system. However, it seems that it is more a matter of experience and skill rather than any special techniques. We do not use any non-traditional sewing or hemming techniques. We can send a sample for you to evaluate.

How much would the fabric and threads cost us?

- We would only supply the fabric. You would have to source your own threads.

What is the International customs code for the fabric and production?

- Fabric: 60063300
- Garments (made of Cut-TeX® PRO): 61103091

Disclaimer

The information on this technical data sheet is based on the current status, as well as our personal experience with Cut-TeX® PRO. However, the information should not diminish the responsibility of the user to ensure with due care that our Cut-TeX® PRO cut resistant fabric is suited for the intended purpose, surface and application.

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