



Fabric Range

Kozane[®] Pro

Kozane[®] Extreme Kozane[®] Pyro

Kozane[®] Invicta Kozane[®] Supreme



Kozane[®] Pro Art. No. 500.3503

Kozane[®] Pro is a lightweight, high-performance fabric with an innovative 4-way stretch, offering high levels of cut, puncture, abrasion and tear resistance. Breathable and soft, designed primarily for garment manufacturing.



EN 388: 2016 6.1 Abrasion	Level 2
EN 388: 2016 6.2 Blade cut resistance	Level X*
EN 388: 2016 6.4 Tear resistance	Level 4
EN 388: 2016 6.5 Puncture resistance	Level 3
EN 388: 2016 6.3 Cut resistance method (EN ISO 13997:1999)	Level F
ANSI ASTM F2992-15	Cut A6 (Cut Score: 3,743g)

*x stands for not tested. As per clause 6.2.6 of EN 388:2016 for materials dulling the blades, if after the first sequence the number of cycles Cn+1 is greater than 3 times Cn in one of the tested specimens, the EN ISO 13997:1999 Cut resistance method as per clause 6.3 shall be performed and this method becomes the reference test method for the assessment of the protection against cut risks.

Potential applications:

- Cut and slash-resistant clothing
- Cut-resistant lining for gloves
- Anti-theft bags, luggage and upholstery
- Motorcycle, outdoor and extreme sports apparel (speed skating, hockey, speed boating, etc.)
- Cut resistant Footwear

Sectors:

Sports and Leisure, Glass and Metal fabrication, Car Manufacturing, Security

Weight	345 g/m2
Roll width	2.05m
Roll length	20m
Colour	White



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Granberg AS | Bjoavegan 1442 5584 Bjoa | Norway t: +47 53 77 53 00 e: post@granberg.no



Kozane[®] Extreme Art. No. 500.3102

Kozane® Extreme is a lightweight, high-performance fabric, offering the optimum combination between outstanding levels of protection and comfortability. Featuring high levels of cut, puncture, abrasion and tear resistance, Kozane® Extreme is breathable, soft, and designed primarily for garment manufacturing.



EN 388: 2016. 6.1 Abrasion	Level 3
EN 388: 2016. 6.2 Blade cut resistance	Level X*
EN 388: 2016. 6.4 Tear resistance	Level 4
EN 388: 2016. 6.5 Puncture resistance	Level 4
EN 388: 2016. 6.3 Cut resistance method (EN ISO 13997:1999)	Level F
ANSI ASTM F2992-15	Cut A8 (Cut Score: 5,215g)

*x stands for not tested. As per clause 6.2.6 of EN 388:2016 for materials dulling the blades, if after the first sequence the number of cycles Cn+1 is greater than 3 times Cn in one of the tested specimens, the EN ISO 13997:1999 Cut resistance method as per clause 6.3 shall be performed and this method becomes the reference test method for the assessment of the protection against cut risks.

Potential applications:

- Cut and slash-resistant clothing
- Anti-theft bags, luggage and upholstery
- ✓ Motorcycle, outdoor and extreme sports apparel
- Cut resistant Footwear
- Bite and scratch resistant clothing for professionals in mental health and special education

Sectors:

Glass and Metal fabrication, Car Manufacturing, Security, Healthcare, Sports and Leisure, Mining, Recycling, Paper and Pulp

Weight	375 g/m2
Roll width	2.05m
Roll length	20m
Colour	Black



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Kozane[®] Pyro Art. No. 500.2009

Originally designed as a lining for Granberg gloves, Kozane[®] Pyro's unique composition offers outstanding cut and heat resistance. This exceptional three-dimensional knitted fabric combines a high-performance top layer with a soft, fire resistant bottom layer for optimum comfort and protection.



EN 388: 2016 6.1 Abrasion	Level 3
EN 388: 2016 6.2 Blade cut resistance	Level X*
EN 388: 2016 6.4 Tear resistance	Level 4
EN 388: 2016 6.5 Puncture resistance	Level 1
EN 388: 2016 6.3 Cut resistance method (EN ISO 13997:1999)	Level F
EN 407:2004 Clause 5.2 Contact Heat	Level 1 (100°C for ≥ 15 seconds

*x stands for not tested. As per clause 6.2.6 of EN 388:2016 for materials dulling the blades, if after the first sequence the number of cycles Cn+1 is greater than 3 times Cn in one of the tested specimens, the EN ISO 13997:1999 Cut resistance method as per clause 6.3 shall be performed and this method becomes the reference test method for the assessment of the protection against cut risks.

Potential applications:

- Cut and heat resistant lining for gloves
- PPE Manufacturing Cut and heat resistant arm guards, aprons, chaps, clothing
- Cut and heat resistant protective clothing for Security/Army – can be personalised with camouflage print

Sectors:

Glass and Metal fabrication, Car Manufacturing, Security/Army

Weight	545g/m2
Roll width	1.90m
Roll length	18m
Colour	Green



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Granberg AS | Bjoavegan 1442 5584 Bjoa | Norway t: +47 53 77 53 00 e: post@granberg.no



Kozane[®] Invicta Art. No. 500.2019

Kozane[®] Invicta features outstanding tear and abrasion resistance, with added cut and puncture resistance.



EN 388: 2016 6.1 Abrasion	Level 4
EN 388: 2016 6.2 Blade cut resistance	Level X*
EN 388: 2016 6.4 Tear resistance	Level 4
EN 388: 2016 6.5 Puncture resistance	Level 4
EN 388: 2016 6.3 Cut resistance method (EN ISO 13997:1999)	Level B

*x stands for not tested. As per clause 6.2.6 of EN 388:2016 for materials dulling the blades, if after the first sequence the number of cycles Cn+1 is greater than 3 times Cn in one of the tested specimen, the EN ISO 13997:1999 Cut resistance method as per clause 6.3 shall be performed and this method becomes the reference test method for the assessment of the protection against cut risks.

Potential applications:

- Tear-resistant clothing and bedding for mental health and prison/corrections
- Extremely durable footwear, luggage, upholstery
- ✓ Abrasion resistant protective motorcycle apparel
- Reinforcements (i.e. knees and elbows) for puncture, tear and abrasion resistance

Sectors:

Sports and Leisure, Healthcare, Prisons and Corrections, Security/Army

Weight	470 g/m2
Roll width	1.87m
Roll length	18m
Colour	Black or Grey

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Granberg AS | Bjoavegan 1442 5584 Bjoa | Norway t: +47 53 77 53 00 e: post@granberg.no



Kozane[®] Supreme Art. No. 500.1005

Kozane[®] Supreme reaches the highest possible cut resistance level according to the American standard ANSI ASTM F2992-15, an unprecedented ANSI A9 for a knitted fabric, previously only achieved by chain mail. While offering the highest cut, puncture, and tear resistance, Kozane[®] Supreme is soft and breathable, which makes it suitable for manufacturing cut resistant products across a variety of sectors.



EN 388: 2016. 6.1 Abrasion Level 4	
EN 388: 2016. 6.2 Blade cut resistance	Level X*
EN 388: 2016. 6.4 Tear resistance	Level 4
EN 388: 2016. 6.5 Puncture resistance	Level 4
EN 388: 2016. 6.3 Cut resistance method (EN ISO 13997:1999)	Level F
ANSI ASTM F2992-15	Cut A9 (Cut Score: 7,005g)

*x stands for not tested. As per clause 6.2.6 of EN 388:2016 for materials dulling the blades, if after the first sequence the number of cycles Cn+1 is greater than 3 times Cn in one of the tested specimens, the EN ISO 13997:1999 Cut resistance method as per clause 6.3 shall be performed and this method becomes the reference test method for the assessment of the protection against cut risks.

Potential applications:

- Cut and slash-resistant clothing
- Anti-theft bags, luggage, and upholstery
- Motorcycle, outdoor and extreme sports apparel
- Cut resistant Footwear

Sectors:

Glass and Metal fabrication, Car Manufacturing, Security, Healthcare, Sports and Leisure, Mining, Recycling, Paper and Pulp

Weight	531 g/m2
Roll width	1.98m
Roll length	18m
Colour	Black



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