



Hand protection for
food processing from
the cut resistance
specialists

Engineered for Food Safety. Built for Performance.

For more than 140 years, Tilsatec has been at the forefront of engineering high-performance protective materials. Today, we design and manufacture advanced hand, arm and body protection trusted by businesses around the world to protect workers in demanding industrial environments.

Our proprietary cut-resistant yarn technology is developed and manufactured at our UK production facility, giving us complete control over quality, consistency and performance from fiber to finished product. Combined with our expertise in glove design and advanced knitting technologies, this enables us to deliver protective solutions that balance exceptional protection, comfort and value.

Working alongside distributors, safety professionals and end users, we help identify workplace hazards and recommend the right PPE for each application. From product selection and wear trials through to implementation and training, our team is committed to helping customers improve safety, productivity and worker confidence.

“When our gloves perform at their best, your people can perform at their best.”



Hand and arm protection for food handling

FDA (Food and Drug Administration)

FDA 21 CFR 177.2600 is a U.S. Food and Drug Administration regulation that covers Rubber articles intended for repeated use in contact with food.

It is part of the Code of Federal Regulations (CFR) and specifies the requirements that rubber materials must meet before they may be safely used repeatedly in producing, manufacturing, packing, processing, preparing, treating, transporting, or holding food.

Compliance is demonstrated through extraction testing, where the material is exposed to specified food simulants, including distilled water and n-hexane, under controlled conditions. The amount of extractable material released from the product must remain within the limits defined by the regulation.

A glove described as compliant with FDA 21 CFR 177.2600 has been shown to meet the extraction requirements of the regulation and is considered suitable for repeated food-contact applications within the scope of the standard.

FDA 21 CFR 177.2600 compliance does not constitute FDA approval.

ANSI/ISEA 105-2024 – Hand and Arm Protection Standard

This standard provides a detailed framework for classifying and testing hand and arm protection products based on their performance against mechanical, chemical, and thermal hazards.

Widely recognized across North America, it establishes clear criteria and test methods to evaluate cut, puncture, abrasion, chemical resistance, heat and flame protection.

The standard generally aligns with international EN methods for mechanical and thermal protection, helping end users select gloves that are fit for purpose and reliable in real-world workplace conditions.



EC Food Regulations

Tilsatec's food range products are approved for contact in accordance with the parent directive 1935/2004/EC. They also meet the specific requirements outlined in Commission Regulation (EU) No 10/2011 concerning plastic materials and articles intended to come into contact with food.

The regulation governs the substances that may be used in the manufacture of food contact materials (including gloves for food handling) and specify that under normal foreseeable conditions of use, they do not transfer their constituents to food in quantities which could:

- endanger human health; or
- bring about an unacceptable change in the composition of the food; or
- bring about a deterioration in the organoleptic characteristics (i.e. texture, taste, aroma)

To ensure food contact materials comply with these regulations a series of test standards are applied (EN 1186) to determine migration levels from contact materials into the food using a variety of food simulants. Compliance with the allowable limits enables food gloves to be marked with the following 'food safe' pictogram:



Tilsatec food approved products have been tested according to these standards and meet the total extractive and overall migration limits required for repeat use application.



EN388:2016+A1:2018 - Mechanical Protection EN ISO 13997 Cut Resistance (A-F) New to the standard in 2016

The EN ISO 13997 cut resistance method is one of the recent additions to the EN 388 standard. This test was introduced to accommodate higher cut resistance materials in the market that have a blunting effect on blades and other sharp objects. This method uses a TDM test device, fitted with a single use straight edge blade that is drawn once across the material in one direction. Once the blade cuts through the sample, the distance that the blade has travelled is recorded.

A range of forces, measured in newtons, is applied during the test. A graph plotting force against cutting distance is then used to determine the force required to cut through the material over a blade travel of 20mm. By using the blade only once and testing a variety of load forces (as opposed to the 5N standard load used in the coupe test), the impact of blade blunting is eliminated and a more accurate representation of cut protection is assigned.

EN ISO 21420:2020+A1:2024 General requirements for most types of protective gloves includes:

Glove design and construction • Sizing and measurement of gloves • Cleaning • Dexterity • Innocuousness • Product marking, packaging and information supplied by the manufacturer • Breathability and comfort • Electrostatic properties



EN407: 2020 - Protection from Thermal Hazards

The heat and flame pictogram is shown with six numbers, representing performance levels against specific thermal hazard tests.

Contact Heat

The test sample is placed on a calorimeter and a heated cylinder is brought into contact with the specimen.

Temperatures of 100, 250, 350 and 500°C are tested to determine the classification. The threshold time shall be calculated, where an increase in calorimeter temperature of 10°C is observed once the heated cylinder is in contact with the sample. A threshold time of greater than 15 seconds demonstrates a pass for the test temperature. If a level 3 contact heat is achieved, then burning behaviour must also be tested and pass level 1.



RhinoYarn® Cut Resistant Technology For The Food Industry

There are a number of different yarns commonly used to provide cut resistance but developing yarns suitable for use in the food industry means we need to deliver high cut protection, food contact safety and prevent contamination of the food stuffs being handled.

A unique set of requirements, we've re-engineered our RhinoYarn® technology to bring you enhanced mechanical protection in our new range of food safe gloves and sleeves. Developed using a composite HPPE yarn structure around a steel core, the range is inherently antimicrobial for the life of the product and provides heightened comfort, grip and dexterity.

Understanding Glove Gauges

You will likely have come across terminology such as 'gauge' or '13gg' in relation to protective gloves and you may be wondering what it means and why it's important.

Gauge essentially measures the number of stitches used per inch in the knitting process of a glove. With today's manufacturing techniques you will generally come across gloves in 7, 10, 13, 15 and 18 gauge. The 7 gauge glove will be much thicker than an 18 gauge glove however, the lighter gauge glove will actually be denser/more tightly knit. Both have advantages, but it depends on the handling requirements and application involved as to which would be most suitable.

As new engineered fibers and yarns are developed, the knitting gauges we are able to use are increasingly higher to produce thinner, more dexterous gloves without compromising on the level of protection.

Laundrying Instructions For The Tilsatec Food-Safe Range

The gloves can be laundered and tumble dried with no effect on cut resistance or the anti-microbial properties using mild detergents. Do NOT use chlorine bleach, however 'oxygen' bleach can be used in place of chlorine bleach.

Food Processing Industries

CUT INJURIES ARE ONE OF THE MOST COMMON RISKS WORKERS FACE IN THE FOOD PROCESSING SUPPLY CHAIN

Tilsatec have designed hand and arm protection solutions delivering high cut and thermal protection with exceptional grip, comfort and durability to meet the needs of most handling applications in the food processing and packaging environments.



Primary Processing

Slaughtering
Butchery
Deboning
De-skinning



72-6110



73-9110



74-8111



Secondary Processing

Filleting
Trimming
Slicing
Chopping



71-7110



72-6110



74-8111



Packing

Raw Ingredient Preparation
Cooking and Preparing
Sandwich Filling
Packing and Labelling



33-6320



71-7110



74-8111



Distribution

General Handling
Moving Goods
Equipment Maintenance



53-7121



55-4325



55-6142



Food Safe Protection Without Compromise

Designed specifically for food processing and food packaging environments, Tilsatec's Food Safe range combines outstanding cut protection with features developed to support food safety, hygiene and wearer comfort.

Manufactured in the UK using our proprietary steel-reinforced HPPE yarn technology, every glove is **100% glass fiber-free**, helping reduce the risk of contamination while delivering outstanding mechanical protection. Antimicrobial properties are engineered into the gloves for their entire working life, providing lasting freshness without compromising performance.

Available in lightweight 13-gauge, medium-weight 10-gauge and heavy-duty 7-gauge constructions, the range offers protection and comfort for a wide variety of food handling applications.

The range is:

- Manufactured in the UK using proprietary cut-resistant yarn technology
- Glass fiber-free to help minimise contamination risk
- Engineered with permanent antimicrobial protection
- Compliant with EU Regulation 10/2011 for plastic materials and articles intended to come into contact with food
- Tested to EN ISO 15797 industrial laundering, maintaining cut protection after **50 industrial wash cycles** at temperatures up to **85°C** with tumble drying up to **70°C**

Whether processing meat, poultry, seafood or packaged food products, Tilsatec Food Safe gloves deliver the confidence that comes from combining exceptional cut protection with materials engineered specifically for demanding food production environments.

71-7110

Lightweight cut level **A7**
antimicrobial food safe glove



CUT **A7**

- ANSI/ISEA 105:2024 A7 cut resistance
- Inherent antimicrobial component safe for food handling
- Yarn structure (free from glass fiber) delivers better grip and mechanical protection
- Tested to EN ISO 15797 industrial wash test to withstand x50 washes at up to 185°F (85°C) and drying up to 158°F (70°C)
- Extended cuff for added protection
- Ambidextrous
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 13gg | **Color:** Blue liner | **Cuff Style:** Knit wrist
Length: 270-320mm | **Size:** 6/XS - 11/2XL
Packaging: 6 pieces/polybag 216 pieces/carton



Applications / Industries

- Meat carving and deboning
- Butchery
- Fish filleting and processing
- Suitable for beef, pork and poultry



72-6110

Medium weight cut level **A6**
antimicrobial food safe glove



CUT **A6**

- ANSI/ISEA 105:2024 A6 cut resistance
- New yarn structure delivers improved grip
- Permanent antimicrobial component
- Free from glass fiber to prevent product contamination
- Tested to EN ISO 15797 industrial wash test to withstand x50 washes at up to 185°F (85°C) and drying up to 158°F (70°C) with no effect on cut resistance
- Extended cuff for added protection
- Ambidextrous
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 10gg | **Color:** Blue liner | **Cuff Style:** Knit wrist
Length: 270-320mm | **Size:** 6/XS - 11/2XL
Packaging: 6 pieces/polybag 144 pieces/carton



Applications / Industries

- Meat carving and deboning
- Butchery
- Fish filleting and processing
- Suitable for beef, pork and poultry



73-9110

Heavy weight cut level **A9**
antimicrobial food safe glove



CUT **A9**

- ANSI/ISEA 105:2024 A9 cut resistance
- Inherent antimicrobial component safe for food handling
- Yarn structure (free from glass fiber) delivers better grip and mechanical protection
- Tested to EN ISO 15797 industrial wash test to withstand x50 washes at up to 185°F (85°C) and drying up to 158°F (70°C) with no effect on cut resistance
- Extended cuff for added protection
- Ambidextrous
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 7gg | **Color:** Blue liner | **Cuff Style:** Knit wrist
Length: 255-305mm | **Size:** 6/XS - 11/2XL
Packaging: 6 pieces/polybag 144 pieces/carton



Applications / Industries

- Meat carving and deboning
- Butchery
- Fish filleting and processing
- Suitable for beef, pork and poultry



74-8111

Medium weight cut level **A8**
antimicrobial food safe sleeve

CUT **A8**



- ANSI/ISEA 105:2024 A8 cut resistance
- Inherent antimicrobial component safe for food handling
- Tested to EN ISO 15797 industrial wash test to withstand x50 washes at up to 185°F (85°C) and drying up to 158°F (70°C) with no effect on cut resistance
- Designed for use with the Tilsatec food safe glove range
- Thumb slot for a secure fit
- Elasticated top to keep sleeve in place
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 10gg | Color: Blue | Cuff Style: Knit wrist
Length: 20"/50cm | Size: One size
Packaging: Packed per piece 100 pieces/carton



Applications / Industries

- Meat carving and deboning
- Butchery
- Fish filleting and processing
- Suitable for beef, pork and poultry



33-6320

Comfort+ mediumweight
cut level **A6** liner glove

CUT **A6**



- ANSI/ISEA 105:2024 A6 cut resistance
- New non-reinforced RhinoYarn® structure for increased comfort and flexibility for all day wear
- 13 gauge seamless liner free from alloy and mineral yarns
- Available in sizes 6-11
- Tested after washing to industrial standard
- Suitable for contact with all foodstuffs in accordance with the requirements of EU Regulation No. 10/2011
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 13gg | Color: Grey liner | Cuff Style: Knit wrist
Length: 220-270mm | Size: 6/XS - 11/2XL
Packaging: 12 pairs/paper band. Sizes 6, 7, 11 72 pairs/carton, Sizes 8, 9, 10 120 pairs/carton



Applications / Industries

- Assembly
- Automotive industry
- Glass manufacturing
- Metal fabrication / stamping
- Construction
- White goods manufacturing



35-4329

Comfort+ lightweight
cut level **A4** liner glove

CUT **A4**



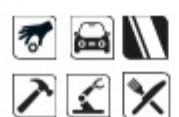
- ANSI/ISEA 105:2024 A4 cut resistance
- New non-reinforced RhinoYarn® structure for increased comfort and flexibility for all day wear
- 15 gauge seamless liner free from alloy and mineral yarns
- Available in sizes 5-12
- Tested after washing to industrial standard
- Suitable for contact with all foodstuffs in accordance with the requirements of EU Regulation No. 10/2011
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 15gg | Color: Grey liner | Cuff Style: Knit wrist
Length: 220-270mm | Size: 5/XXS - 12/3XL
Packaging: 12 pairs/paper band. Sizes 5, 6, 7, 11, 12 72 pairs/carton, Sizes 8, 9, 10 120 pairs/carton



Applications / Industries

- Assembly
- Automotive industry
- Glass manufacturing
- Metal fabrication / stamping
- Construction
- White goods manufacturing



General Handling & Distribution

Workers responsible for packing, palleting and moving food goods for shipping can also be exposed to low level cut hazards and need good wet and dry grip to ensure secure and efficient handling. The Tilsatec multi-purpose range provides abrasion resistance level B-C cut resistance and a degree of liquid protection with all day comfort. Mechanical gloves can also act as a barrier where repeated surface touching is involved.



55-4173

Nitrile cut level **A4** chemical gauntlet with
microfoam palm coating



except with
acidic/fatty foods

- ANSI/ISEA 105:2024 A4 cut resistance
- EN374-1:2016+A1:2018 Permeation Type A
- EN374-5:2016 bacteria and fungi
- EN388:2018+A1:2018 level D cut resistance
- EN407: 2020 contact heat level 1
- Incident Indicator-high contrast liner to identify damage to the chemical barrier
- Nitrile microfoam palm dip for improved wet and dry grip
- Under edge size indicator for fast product sizing identification
- Suitable for contact with aqueous foodstuffs in accordance with the requirements of EU Regulation No. 10/2011
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 15gg | Color: Blue/black
Cuff Style: Gauntlet | Length: 35cm | Size: 7/S - 11/2XL
Packaging: 6 pairs/paper band, 48 pairs/carton



Applications / Industries

- Oil & Gas
- Mining
- Heavy machinery
- Manufacturing
- Maintenance
- Waste



55-6177

Nitrile cut level **A6** chemical gauntlet with
microfoam palm coating



except with
acidic/fatty foods

- ANSI/ISEA 105:2024 A6 cut resistance
- EN374-1:2016+A1:2018 Permeation Type A
- EN374-5:2016 bacteria and fungi
- EN388:2018+A1:2018 level F cut resistance
- EN407: 2020 contact heat level 1
- Incident Indicator-high contrast liner to identify damage to the chemical barrier
- Nitrile microfoam palm dip for improved wet and dry grip
- Under edge size indicator for fast product sizing identification
- Suitable for contact with aqueous foodstuffs in accordance with the requirements of EU Regulation No. 10/2011
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 15gg | Color: Grey/black
Cuff Style: Gauntlet | Length: 35cm | Size: 7/S - 11/2XL
Packaging: 6 pairs/paper band, 48 pairs/carton



Applications / Industries

- Oil & Gas
- Mining
- Heavy machinery
- Manufacturing
- Maintenance
- Waste



55-6142

Lightweight cut level **A6** full dip nitrile with sandy foam nitrile palm coating

CUT **A6**



- New RhinoYarn® cut resistant technology
- ANSI/ISEA 105:2024 A6 cut resistance
- Fine 15 gauge lightweight liner
- A full dip nitrile coating provides liquid and oil repellency, whilst the sandy foam palm provides strong grip performance
- Touchscreen compatible reducing need to remove gloves
- Seamless liner and cuff gives a smooth, form-fitting feel
- Tested after washing to industrial standard
- Suitable for contact with aqueous foodstuffs in accordance with the requirements of EU Regulation No. 10/2011
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 15gg | **Color:** Grey liner / Black coating
Cuff Style: Knit wrist | **Length:** 210-280mm | **Size:** 5/XXS - 12/3XL
Packaging: 12 pairs/paper band. Sizes 5, 6, 7, 11, 12 / 72 pairs/carton
 Sizes 8, 9, 10 / 120 pairs/carton



Applications / Industries

- Final fix / light assembly
- Automotive assembly
- Light metal fabrication
- Transportation
- Aerospace
- White goods manufacturing



53-7121

Medium weight cut level **A6** sandy foam nitrile palm coated glove with reinforcement

CUT **A6**



- ANSI/ISEA 105:2024 A6 cut resistance
- New RhinoYarn® composition using lighter, finer steel
- Black nitrile reinforcement to thumb crotch
- 360 breathability reduces perspiration
- Sandy foam nitrile palm coating provides good wet and dry grip
- Can be laundered at 104°F for up to x3 washes
- Suitable for contact with aqueous foodstuffs in accordance with the requirements of EU Regulation No. 10/2011
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600

Gauge: 13gg | **Color:** Grey liner / Black coating
Cuff Style: Knit wrist | **Length:** 220-270mm | **Size:** 6/XS - 11/2XL
Packaging: 12 pairs/polybag 120 pairs/carton



Applications / Industries

- Assembly
- Automotive industry
- Glass manufacturing
- Metal fabrication / stamping
- White goods manufacturing



55-4325

Comfort+ lightweight cut level **A4** glove with microfoam nitrile palm coating

CUT **A4**



- ANSI/ISEA 105:2024 A6 cut resistance
- New non-reinforced RhinoYarn® structure for increased comfort and flexibility for all day wear
- 15 gauge seamless liner free from alloy and mineral yarns
- Microfoam nitrile palm coating delivers ultimate comfort with high tactility and dexterity
- Reinforced thumb for increased durability in high wear
- Touchscreen capable
- Tested after washing to industrial standard
- Suitable for repeated food contact applications in accordance with FDA 21 CFR 177.2600
- Suitable for contact with aqueous foodstuffs in accordance with the requirements of EU Regulation No. 10/2011

Gauge: 15gg | **Color:** Grey liner/Black coating | **Cuff Style:** Knit wrist
Length: 220-270mm | **Size:** 5/XXS - 12/3XL
Packaging: 12 pairs/paper band. Sizes 5, 6, 7, 11 72 pairs/carton,
 Sizes 8, 9, 10 120 pairs/carton



Applications / Industries

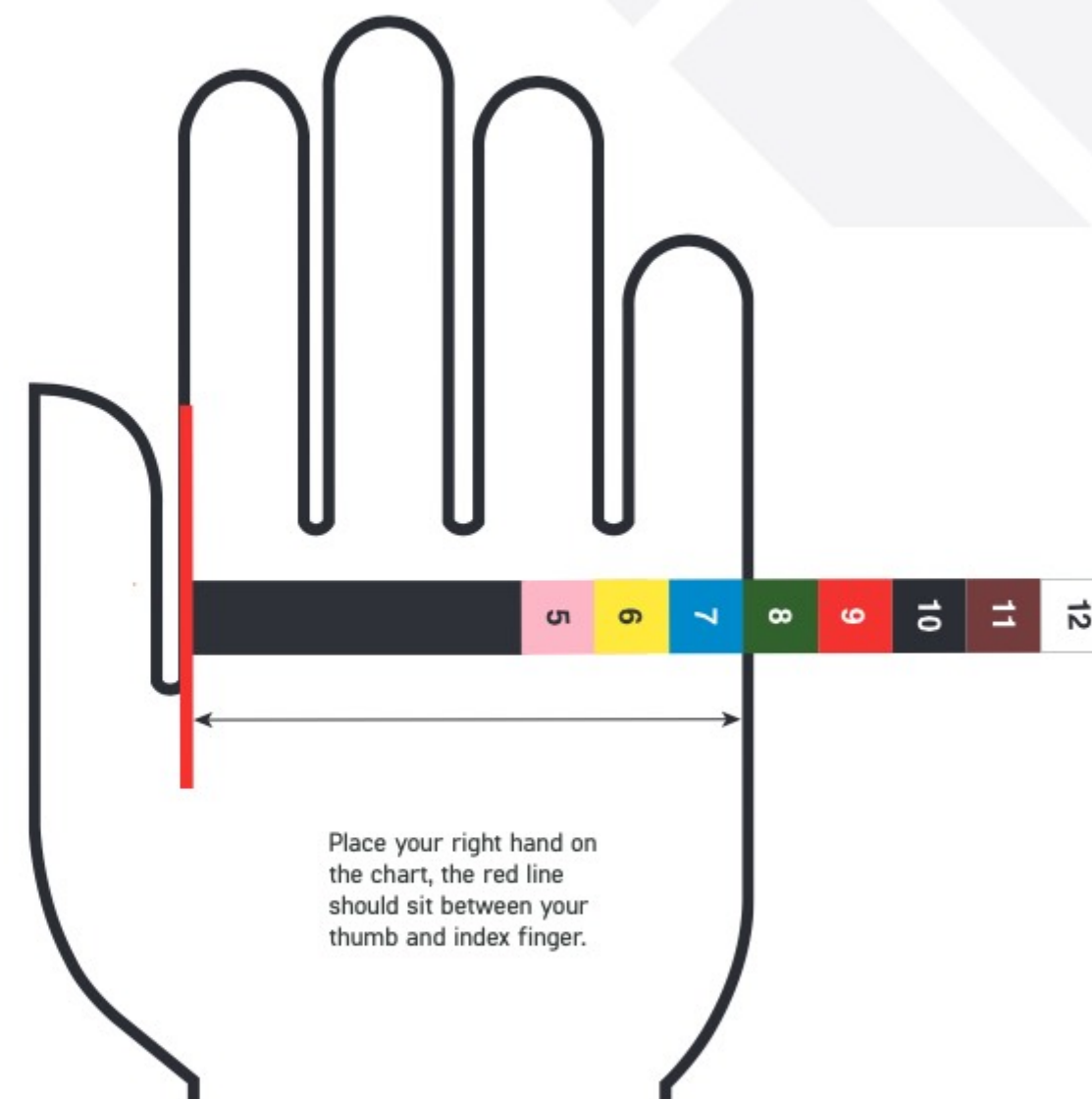
- Assembly
- Automotive industry
- Glass manufacturing
- Metal fabrication / stamping
- Construction
- White goods manufacturing



Glove Sizing Chart

Cut resistant food gloves

Tilsatec gloves are available in a range of sizes. To ensure optimum fit and comfort, selecting the correct size glove is essential. Measure your hand against the chart below to see what size glove you need.



Place your right hand on the chart, the red line should sit between your thumb and index finger.

Size	5 XX-Small	6 X-Small	7 Small	8 Medium	9 Large	10 X-Large	11 2X-Large	12 3X-Large
Color coded cuff								



tilsatec-na.com 1-877-466-8499 customerservicena@tilsatec.com
TILSATEC North America, 5770 N. Hix Road, Westland, MI 48185, USA