TILSATEC®

Hand protection for **food processing** from the cut resistance specialists

2022

Tilsatec is a UK manufacturer with a long history in developing technical yarns and materials for PPE. Specialising in cut resistant hand and arm protection we are able to engineer high levels of performance and mechanical protection into all our products. Working closely in partnership with customers, we design and develop solutions from the ground up to ensure they are receiving maximum performance/cost efficiencies.

For businesses who want expertise they can rely on to keep their people safe, Tilsatec deliver high performance hand, arm and body protection solutions. We manufacture our own proprietary cut resistant yarn - the primary source of mechanical protection, on site in the UK. This means we can deliver maximum performance in every fibre of what we do.

Selecting the right protective solution for your needs is vital, but can sometimes seem a complex exercise. Our representatives are able to guide you through the entire process, this typically includes conducting a comprehensive hand protection site survey to understand the hazards and requirements involved. They can then make clear and simple recommendations as to the type and style of PPE you need. Following successful trials, they can also assist with on site training and inductions to ensure workers are wearing and using their PPE correctly from the outset, ensuring they go home safely at the end of the day.

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

Hand and arm protection for food handling

EC Food Regulations

Tilsatec food range products are approved for contact with all foodstuffs in compliance with the parent directive 1935/2004/EC. They also comply with the specific requirements laid down in the Commission Regulation (EU) No 10/2011 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 - 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 388:2016 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 force in newtons are used throughout the test and a graphical representation of force against cutting distance is used to determine the force required to cut through the material at 20mm of blade travel. 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.

EN21420:2020 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.

Rhino Yarn® 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.

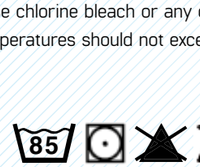
A unique set of requirements, we've re-engineered our Rhino Yarn™ technology to bring you enhanced mechanical protection in our new range of food safe gloves and sleeves. Developed using a composite HPPE yarn structure around a steel core, the range is inherently antimicrobial for the life of the product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

Laundering Instructions For The Tilsatec Food-Safe Range

Tilsatec food gloves have been tested after washing according to Industrial Wash Test: ISO 15797:2018 for 50 washes at 85°c (185°F). The gloves can be laundered and dry cleaned with no effect on cut resistance or the anti-microbial properties using mild detergents. Do NOT use chlorine bleach or any oxidising ingredients, however 'oxygen' bleach can be used in place of chlorine bleach. Drying temperatures should not exceed 70°c (158°F).



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

72-8110 73-9110 74-8111

Secondary Processing
Filleting
Trimming
Slicing
Chopping

71-7110 72-8110 74-8111

Packing
Raw Ingredient Preparation
Cooking and Preparing
Sandwich Filling
Packing and Labelling

71-7110 74-8111

Distribution
General Handling
Moving Goods
Equipment Maintenance

58-2220 55-5120 50-6121 53-3314

Enhanced Performance

Tilsatec has raised the bar in cut resistant gloves for food handling with this new range of hand and arm protection. Delivering incredible mechanical performance it has additional features and a yarn construction designed specifically for handling food substances.

The lightweight 13 gauge **71-7111**, medium weight 10 gauge **72-8110** and 7 gauge **73-9110** heavyweight glove styles are designed and knitted using an innovative blend of steel-reinforced HPPE. 100% manufactured in the UK, free from glass fibre to prevent food contamination, the antimicrobial properties are engineered to last the lifetime of the gloves.

With a weight and style to suit most applications in the meat processing and food packaging industries, the range is compliant with Regulation 10/2011 plastic materials and articles intended to come into contact with food. Tested to EN ISO 15797 industrial wash test to withstand x50 washes at up to 85°C and drying up to 70°C with no effect on cut resistance.

72 8110

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

- EN388:2016 level F (ANSI 105-2016 A8) cut resistance
- Inherent antimicrobial component safe for food handling
- New yarn structure (free from glass fibre) delivers better grip and mechanical protection

Applications / Industries

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

EN388: 2016 4X4XF

Code	72-8110
Description	Medium weight cut level **F** antimicrobial food safe glove
Gauge	10gg
Colour	Blue liner
Cuff Style	Knit wrist
Length	255-305mm
Sizes	6/XS - 11/2XL
Packaging	6 pieces/polybag 144 pieces/carton

73 9110

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

- EN388:2016 level F (ANSI 105-2016 A9) cut resistance
- Inherent antimicrobial component safe for food handling
- New yarn structure (free from glass fibre) delivers better grip and mechanical protection
- Extended cuff for added protection
- EN407: 2004 contact heat level 1 protection

Applications / Industries

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

EN388: 2016 4X4XF EN407: 2004 X1XXXX

Code	73-9110
Description	Heavyweight cut level **F** antimicrobial food safe glove
Gauge	7gg
Colour	Blue liner
Cuff Style	Knit wrist
Length	255-305mm
Sizes	6/XS - 11/2XL
Packaging	6 pieces/polybag 144 pieces/carton

71 7110

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

- EN388:2016 level F (ANSI 105-2016 A7) cut resistance
- Inherent antimicrobial component safe for food handling
- New yarn structure (free from glass fibre) delivers better grip and mechanical protection
- Extended cuff for added protection

Applications / Industries

- Vegetable preparation
- Food packaging and processing
- Light duty meat carving and slicing

EN388: 2016 3X4XF

Code	71-7110
Description	Lightweight cut level **F** antimicrobial food safe glove
Gauge	13gg
Colour	Blue liner
Cuff Style	Knit wrist
Length	255-305mm
Sizes	6/XS - 11/2XL
Packaging	6 pieces/polybag 216 pieces/carton

74 8111

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

- EN388:2016 level F (ANSI 105-2016 A8) cut resistance
- Inherent antimicrobial component safe for food handling
- New yarn structure (free from glass fibre)
- Thumb slot for a secure fit

Applications / Industries

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

EN388: 2016 4X4XF

Code	74-8111
Description	Medium weight cut level **F** antimicrobial food safe glove
Gauge	10gg
Colour	Blue
Cuff Style	Knit wrist
Length	20"/50cm
Sizes	One Size
Packaging	Packed per piece 100 pieces/carton

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.

58 2220

Multi-purpose ultra-lightweight cut level **B** bi-polymer foam coated glove

- Exceptional dexterity and tactility for precision handling
- Tough and durable bi-polymer foam palm coating
- Reinforced nitrile thumb crotch for high action area
- Secure dry and oil grip
- 360° breathability

Code	58-2220
Description	Multi-purpose ultra-lightweight cut level B bi-polymer foam coated glove
Gauge	18gg
Colour	Grey liner / Black coating
Cuff Style	Knit wrist
Length	230-270mm
Sizes	7/S - 11/2XL
Packaging	12 pairs/polybag 120 pairs/carton

EN388: 2016 4X42B

55 5120

Lightweight micropore foam nitrile coated cut level **E** glove

- High level of tactility and dexterity
- Breathable liner and palm coating
- Micropore foam nitrile palm delivers good dry and oil grip
- Approved for food contact to EU
- Regulation 10/2011
- Increase in abrasion resistance to level 4 for 2021
- Touch screen compatible

Code	55-5120
Description	Lightweight micropore foam nitrile coated cut level E glove
Gauge	15gg
Colour	Black liner / Black coating
Cuff Style	Knit wrist
Length	230-270mm
Sizes	7/S - 11/2XL
Packaging	12 pairs/polybag 120 pairs/carton

EN388: 2016 4X43E

50 6121

Medium weight cut level **F** sandy foam nitrile coated glove with thumb reinforcement

- EN407: 2004 contact heat level 1
- Thumb crotch is reinforced for additional resilience in high action area
- High level of abrasion resistance and durability
- 360 breathability
- Dark colour hides dirt extending life of the glove
- Undetectable levels of DMF

Code	50-6121
Description	Medium weight cut F sandy foam nitrile palm coated glove w/thumb reinforcement
Gauge	10gg
Colour	Black liner / Black coating
Cuff Style	Knit wrist
Length	230-270mm
Sizes	7/S - 11/2XL
Packaging	12 pairs/polybag 120 pairs/carton

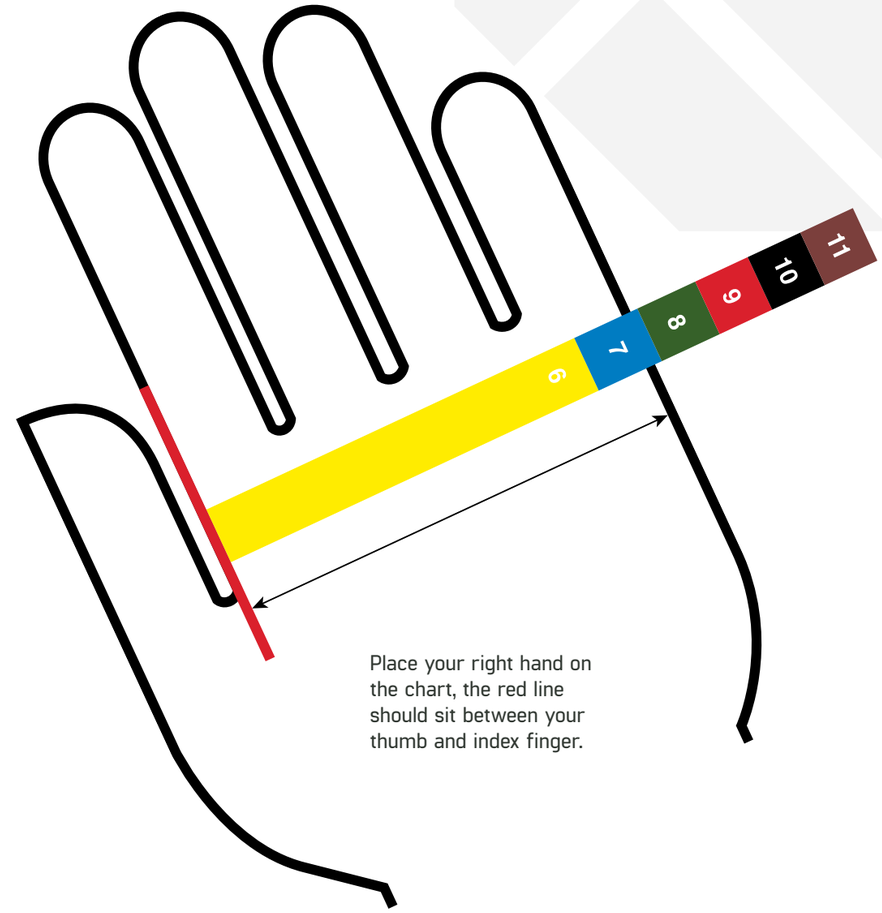
EN388: 2016 4X43F EN407: 2004 X1XXXX

TILSATEC®

Glove Sizing Chart

Antimicrobial 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.

Sizes in the **71-7110** and **72-8110** range are identified by the following cuff colours:

Size	6 X-Small	7 Small	8 Medium	9 Large	10 X-Large	11 XX-Large
Colour coded cuff						

Sizes in the **73-9110** range are identified by the following cuff colours:

Size	6 X-Small	7 Small	8 Medium	9 Large	10 X-Large	11 XX-Large
Colour coded cuff						

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