Hand protection

CA615K

THERMAL WELDING WORKS

Thermal leather glove, offers increased durability in the heavy industry

Specific benefits

Performance

· Extra thick and long for extra protection of the entire arm
· The high-performance HEATnocut fiber provides resistance to contact heat (100°C for 15 seconds)

Applications

- **Public Works**
- **Building**
- **Finishing Works/Craftsmanship**
- **Maintenance**
- **Automotive**
- **Mining**

Certifications and norms

CE

EN 388
3 1 3 2 X

EN 12477
TYPE A

EN 407
4 1 3 X 4 X

Risk Protection

Heat

www.npower.com.vn
Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của **NPOWER**
Bản quyền nội dung thuộc về **DELTA PLUS**

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Hand protection

CA615K

THERMAL WELDING WORKS

Thermal leather glove, offers increased durability in the heavy industry

Standards - Details

EN388:2016+A1:2018
3 [0-4] ABRASION RESISTANCE
1 [0-5] CUT RESISTANCE
3 [0-4] TEAR RESISTANCE
2 [0-4] PIERCE RESISTANCE
X [A-F] CUT RESISTANCE ISO 13997

EN 407
THERMAL RISKS (X = NOT TESTED)
4 [0-4] BURNING BEHAVIOUR
1 [0-4] CONTACT HEAT RESISTANCE
3 [0-4] CONVECTIVE HEAT
X [0-4] RADIANT HEAT RESISTANCE
4 [0-4] SMALL DROP MOLTEN METAL
X [0-4] LARGE QUANTITY MOLTEN METAL

Technical details

Glove kind	Special glove
Glove family	Cut and sewn leather palm / leather back
Mechanical Glove Type	Cut Sewn
Special gloves kind	Welding
Thickness (mm)	1,2 -> 1,4
Arm level protection	Forearm cuff (< 400mm)
Cuff caracteristic	Leather cuff
Benefits element	Kevlar stitching
Color	Red
Size	10
Type of conditioning	Bulk bag of 12

Safety gloves

CA615K

THERMAL WELDING WORKS

Thermal leather glove, offers increased durability in the heavy industry

Logistics Information

Reference	Color	Size	Designation	EAN13	Box Code			Weight			
CA615K10	Red	10	CA615K	3295249021597	13295249021594	60	12	22.1 kg	26.2 cm	37.0 cm	77.6 cm

Multiple Sales

Minimum Order Quantity

Box Width

Box Depth

Box Height

2024 GLOVES

DELTAPLUS

enjoy safety.

www.e-erb.com

Technical Information

TYPES OF HAND PROTECTION

CUT PROTECTION
Cut resistant gloves
Intense cut work
Long-lasting cut work
Slightly sharp and long-lasting work

MECHANICAL PROTECTION FOR MULTI PURPOSE WORKS
Works in dry, wet and oil environment

MECHANICAL PROTECTION FOR PRECISION WORKS
Works in dry environment
Specific works
Works in wet environment
Works in oily environment

CHEMICAL PROTECTION
Works with prolonged chemical resistance
Works with occasional chemical resistance
Disposable

THERMAL PROTECTION
Leather gloves
Thermal cold works
Thermal specific works

How to Identify Sizes?

Our sizes are marked with numbers as well as size initials.

6-XS	7-SM	8-MD	9-LG	10-XL	11-2X	12-XXXL

ICONS IN THIS BROCHURE

Risk protection

Antistatic · Biological · Chemical · Particles · Heat

Impact · Cutting · Puncture · Cold · Weather · Abrasion

Hand protection

Touchscreen Capable · Precision Touch · Breathable · Anti-Slip · Second Skin · Glove Thickness · Heat Tolerance · Impact Tolerance

Water Repellent · Comfortable Fit · Material Percentage · Lightweight Glove · Eco-Friendly · Extended Cuff Length · Pairs Per Bag

TESTING & STANDARDS

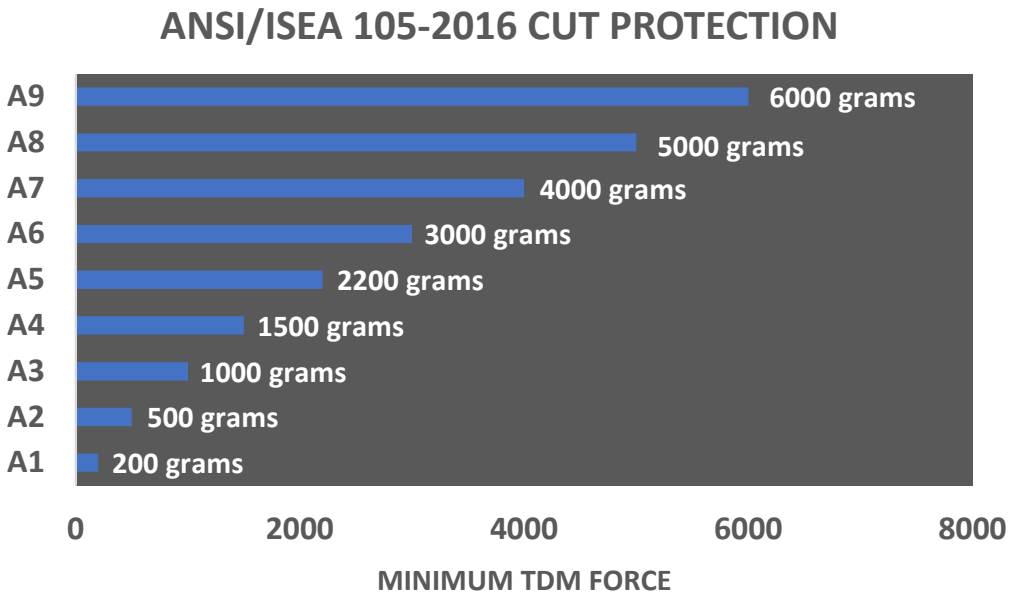
The ANSI and EN standards shown below provide a helpful guideline in assessing the gloves fabric resistance to various hazards. As industries and workplaces change and evolve, so does the need for selecting the correct protective equipment.

ANSI/ISEA 105-2016: AMERICAN NATIONAL STANDARD FOR HAND PROTECTION CLASSIFICATION

ANSI/ISEA 105-2016 is a glove standard that measures performance attributes to ensure hand protection in the workplace. Its classifications assist employers and workers to select the appropriate glove according to tasks and workplace exposures. ANSI/ISEA 105-2016 is related to provide information about Cuts, Abrasions, Chemicals, and Flame Resistance.

ANSI/ISEA 105 - 2016 CUT PROTECTION

The following table shows the glove's capability (by levels) to withstand the weight before the cut.



ANSI/ISEA 138-2019: AMERICAN NATIONAL STANDARD FOR PERFORMANCE AND CLASSIFICATION FOR IMPACT RESISTANT GLOVES

ANSI/ISEA 138-2019 is a new standard that has improved methods classification to evaluate the performance of the glove's backhand protection. This test consists of dropping a 5 joules mass on the protection points of the glove. The impact's weight is measured by kilonewtons (kN) and the standard represents glove protection on a scale that goes from 1 to 3. In order to be approved to the standard, the glove needs to be tested 10 times for the fingers and 8 times for the knuckles; later with the average of the test results the glove is classified.

The following table explains the classification for Impact Resistance.

ANSI/ISEA 138-2019

PERFORMANCE LEVEL	MEAN (kN)	ALL IMPACTS (kN)
1	< 9 9	< 11.3
2	< 6.5	< 8.1
3	< 4	<5

THE EUROPEAN STANDARDS

EN ISO 21420 GENERAL REQUIREMENTS

The reference standard cannot be used alone, but only in combination with another standard containing protection performance requirements.

- **Conform to harmlessness (pH, chrome VI levels, etc…)**
- **Conform to the size chart (below)**
- **Assess the dexterity, breathability, and comfort**
- **Conform to the labeling, information and identification instructions**

SIZES AS PER STANDARD EN ISO 21420		
Glove size	Palm circumference (mm)	Length (mm)
6	152	160
7	178	171
8	203	182
9	229	192
10	254	204
11	279	215
12	304	226

STANDARDIZED LABELING/IDENTIFICATION

Each protective glove is clearly identified by a standardized label, containing the following elements:

- Our brand logo
- The product reference or the trade name
- The size
- An information tag indicating that instructions are available for the product
- The Standardized pictogram(s) with their performance ratings
- The batch number LOT and/or date of manufacture.
- If applicable, the expiry date.

EN16350 ELECTROSTATIC PROPERTIES

The EN16350 standard provides additional requirements for protective gloves that are worn in areas where flammable or explosive areas exist or might be present.

Further electrostatic properties can be determined through EN1149-1 (surface electrostatic properties) or EN1149-3 (charge decay), but cannot be used for electrostatic dissipative protective gloves.

EN511 COLD THERMAL RISK

The EN511 standard defines the requirements and test methods for cold protection gloves from cold transmitted by convection or conduction down to -30°C (optionally up to -50°C). Cold can be from climatic conditions or industrial activity. The selection process of a cold protection glove must take into account several parameters such as ambient temperature, the health of the person, the duration of exposure, and the level of activities.

PERFORMANCE LEVELS **REQUIREMENTS**

1 to 4 1 to 4 1

Impermeability to Water

Resistance to Contact Cold
Measurement of the thermal insulation of the palm of a glove with respect to contact with an object of low temperature

Resistance to Convective Cold
Measurement of the thermal insulation of a glove with respect to an ambient atmosphere

PERFORMANCE LEVEL	INTENSE ACTIVITY	AVERAGE ACTIVITY	SLOW ACTIVITY
1	-10°C ≤ T < 0°C		
2	-30°C < T	0°C ≤ T < 10°C	
3		-15°C < T	5°C < T
4		-30°C < T	-10°C < T

EN407 HEAT AND FIRE RISK

The EN407 standard specifies the test methods, the general requirements, the thermal performance and the labelling of gloves and cuffs to protect from heat and fire.

It applies to all gloves which must protect hands from heat and/or flames in any one or several of the following forms: fire, contact heat, convective heat, radiating heat, small spray of molten metal or large spray of melting metal.

PERFORMANCE LEVELS **REQUIREMENTS**

1 to 4 1 to 4 1 to 4 1 to 4 1 to 4 1 to 4

Resistance to Large Melting Metal Spray
Amount of spray required to cause damage.

Resistance to Large Melting Metal Spray
Amount of spray required to raise the glove to a certain temperature.

Resistance to Radiating Heat
Time required to raise to a given temperature level.

Resistance to Conductive Heat
Time during which the glove is able to delay the transfer of the heat of a flame.

Resistance to Contact Heat
Temperature (within the range of 100°C to 500°C) at which the person wearing the gloves will not feel any pain (for a period of at least 15 seconds).

Resistance to Flammability
Time during which the material remains lighted and continues to be consumed.

If the product claims flammability resistance, the pictogram will be

If the product does not claim any resistance to flammability (0 or X), the pictogram will be

PERFORMANCE LEVEL	CONTACT TEMPERATURE °C	THRESHOLD TIME (second)
1	100° C	≥ 15 s
2	250° C	≥ 15 s
3	350° C	≥ 15 s
4	500° C	≥ 15 s

EN12477 WELDERS RISK

Requirements and test methods for gloves used for manual welding of metals, for cutting and related techniques. Welder gloves are ranked in two types: B when great dexterity is required (e.g.: TIG welding), and A for other welding processes.

EN ISO 374-1 AGAINST THE CHEMICAL RISKS

The EN ISO374-1 standard, protective gloves against chemicals, specifies the performance requirements required for gloves for protecting users against chemical products and defines the terms to be used:

- Penetration (tested as per standard EN374-2):
  Diffusion of water or air, to check the impermeability, through the porosities, seams, microholes or other imperfections present in the material of the protective glove.

- Degradation (tested as per standard EN374-4):
  Determination of the physical resistance of materials to degradation after continuous contact with hazardous chemicals.

- Permeation (tested as per standard EN374-3 or EN16523):
  Process by which a chemical product diffuses through the material of a protective glove by continuous contact.

The EN ISO version of standard 374-1 introduces the concept of three types of protection against the permeation of chemicals:

- Type A: The glove gives a performance index to permeation at least equal to 2 for 6 chemical test substances taken from the list of chemicals specified in the standard.

- Type B: The glove gives a performance index to permeation at least equal to 2 for 3 chemical test substances taken from the list of chemicals specified in the standard.

- Type C: The glove gives a performance index to permeation at least equal to 1 for 1 chemical test substances taken from the list of chemicals specified in the standard.

CODE LETTER	CHEMICAL PRODUCT	CAS number
A	Methanol	67-56-1
B	Acetone	67-64-1
C	Acetonitrile	75-05-8
D	Dichloromethane	75-09-2
E	Carbon disulfide	75-15-0
F	Toluene	108-88-3
G	Diethylamine	109-89-7
H	Tetrahydrofurane	109-99-9
I	Ethyl acetate	141-78-6
J	n-Heptane	142-82-5
K	Caustic soda 40 % (NaOH or sodium hydroxide)	1310-73-2
L	Sulfuric acid 96 %	7664-93-9
M	Nitric acid 65%	7697-37-2
N	Acetic acid 99%	64-19-7
O	Ammonia hydroxide 25%	1336-21-6
P	Hydrogen peroxide 30%	7722-84-1
S	Hydrofluoric acid 40%	7664-39-3
T	Formaldehyde 37%	50-00-0

PASSAGE TIME MEASURED (MN)	PERFORMANCE INDEX TO PERMEATION
> 10 mn	1
> 30 mn	2
> 60 mn	3
> 120 mn	4
> 240 mn	5
> 480 mn	6

EN ISO 374-5 AGAINST THE DANGERS OF MICRO-ORGANISMS

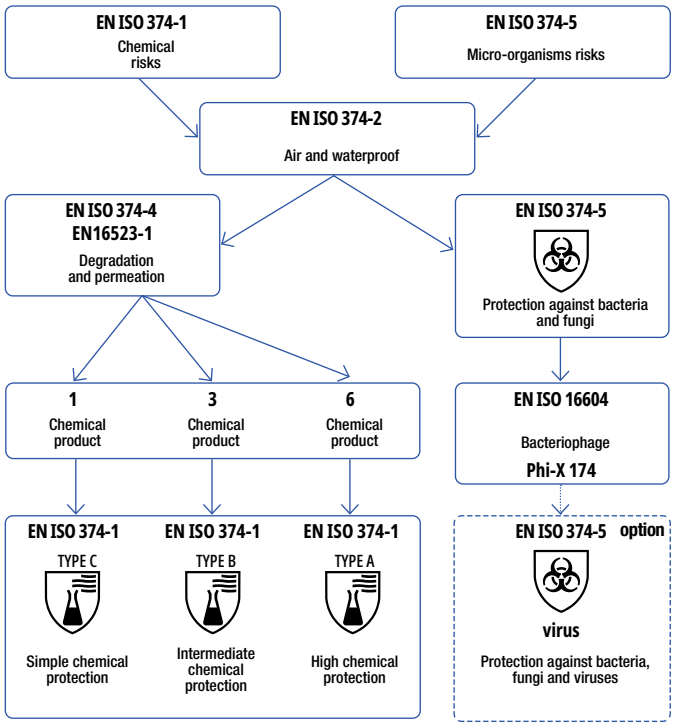
EN ISO 374-5 specifies the requirements and test methods for protective gloves intended to protect the user against microorganisms (mold and bacteria, potentially viruses).

Penetration of molds and bacteria (tested according to EN374-2):
Test by which the water and airtightness of a glove is checked.

Penetration of viruses (tested according to method B of ISO 16604):
Process that determines the resistance to penetration by bloodborne pathogens.

- Test method using Phi-X174 bacteriophage.

The glove, depending on its type, will bear the following pictogram:



EXAMPLES OF APPLICATION:

The field of use is decisive because, depending on the case, the glove may have to combine several properties in order to meet the necessary protection requirements. It is therefore, very important to refer to the recommended areas of use and the results of the laboratory tests found in the instructions for use. However, it is recommended to check that the gloves are suitable for the intended purpose by carrying out tests beforehand, because the conditions at the workplace may differ from those of the standard test, depending on the temperature, abrasion and degradation.

EN ISO 18889 AGAINST PESTICIDE RISKS

The ISO 18889 standard specifies the performance requirements of protective gloves for pesticide operators and re-entry workers. G1 gloves are suitable when the potential risk is relatively low. These gloves are not suitable for use with concentrated pesticide formulations and/or for scenarios where mechanical risks exist.

G1 gloves are typically single use gloves.

G2 gloves are suitable when the potential risk is higher. These gloves are suitable for use with diluted as well as concentrated pesticides. G2 gloves also meet the minimum mechanical resistance requirements and are therefore suitable for activities that require gloves with minimum mechanical strength.

GR gloves provide protection only to the palm-side of the hand for a re-entry worker who is in contact with dry and partially dry pesticide residues that remain on the plant surface after pesticide application.

EN421 AGAINST IONIZING RADIATION AND RADIOACTIVE CONTAMINATION

This standard provides requirements for protective gloves that are worn in an environment producing ionizing radiation or in an environment containing radioactive substances.

A glove protecting against radioactive contamination must be waterproof according to EN374-2.

A glove that protects against ionizing radiation must, in addition to being waterproof according to EN374-2, contain a certain amount of heavy metal such as lead.

EN388 ISO 23 388 MECHANICAL RISKS

The EN388 standard applies to all types of protective gloves with respect to physical and mechanical aggression from abrasion, cutting from puncture and tearing. Since the 2016 version of the standard, new optional performance have appeared.

PERFORMANCE LEVELS **REQUIREMENTS**

1 to 4 1 to 5 1 to 4 1 to 4 A to F ø or P

- **Resistance Impact on the Metacarpal Area**
  Minimum attenuation of the impact force transmitted to the hand.
- **Resistance to Cutting with a Blade (TDM Test)**
  Force necessary for a straight blade to cut the sample on a movement of 20 mm.
- **Resistance to Puncture**
  Force required to pierce the sample with a standardized punch.
- **Resistance to Tearing**
  Maximum force required to tear the sample.
- **Resistance to Cutting with a Blade**
  Number of cycles required with a circular blade to cut the sample at constant speed.
- **Abrasion Resistance**
  Number of cycles required to damage the sample at constant speed.

TEST	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
ABRASION RESISTANCE (NUMBER OF CYCLES)	100	500	2 000	8 000	-
BLADE CUTTING RESISTANCE (index)	1,2	2,5	5,0	10,0	20
TEAR RESISTANCE (N)	10	25	50	75	-
PUNCTURE RESISTANCE (N)	20	60	100	150	-

Impact resistance on the metacarpal area: if this performance is claimed, the "P" mark appears.

Marking example: 4233X P

TEST CUT RESISTANCE EN ISO 13997 (TDM)	LEVEL A	LEVEL B	LEVEL C	LEVEL D	LEVEL E	LEVEL F
APPLIED FORCE (N)	2	5	10	15	22	30

Examples of marking:

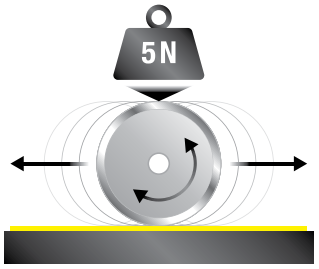
Cut by blade, 2 test methods:

EN388 6.2. :

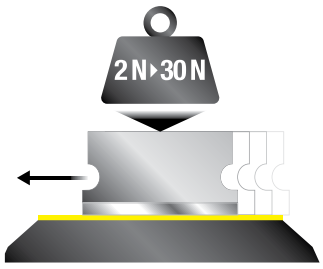
For low to middle risk of cutting. A circular blade on which a constant force of 5 N is applied, moves back and forth until the sample is cut. It measures the number of completed cycles and is credited with the corresponding level.

EN ISO 13997 :

For materials that blunt the blade during the EN388 6.2 test and or are particularly resistant, for high risk of cutting. A straight blade makes a single movement of 20 mm with a force of 2N, the test is repeated with a different force as many times as necessary until the sample is cut. A level corresponding to the force required to cut the sample is assigned. This method better represents the usage situations that present a high risk of cutting.



EN388 6.2.



EN ISO 13997

ANSI/ISEA 105 (American National Standards Institute) Classification and specifications for the protection of the hand. Part 5.11. cut resistance.

Weight necessary for a straight blade to cut the sample in a single movement.

Weight (g)	≥ 200	≥ 500	≥ 1000	≥ 1500	≥ 2200	≥ 3000	≥ 4000	≥ 5000	≥ 6000
2011 version - levels	1	2	3	4	5	-	-	-	-
2016 version - levels	A1	A2	A3	A4	A5	A6	A7	A8	A9

EN ISO 10819 ▸ VIBRATION-REDUCING EFFECTS

The EN ISO 10819 standard specifies performance requirements for vibration attenuation through gloves. The vibration-reducing material must also satisfy thickness and consistency requirements. It should be noted that these gloves can reduce but not eliminate health risks associated with hand-transmitted vibration exposure.

Vibration transmissibility in one-third-octave frequency bands from 25 to 200Hz must be equal to or less than 0.90. The one calculated in one-third-octave frequency bands from 200 to 1250 Hz must be equal to or less than 0.60.

▸ FOOD COMPATIBILITY IS GOVERNED BY:

Regulation (EC) N° 1935/2004 of the European Parliament and of the Council of 27th October 2004 on materials and articles intended to come into contact with foodstuffs.

Materials and articles must be manufactured in compliance with good manufacturing practice so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could:

- Endanger human health
- Bring about an unacceptable change in the composition of the food or a deterioration in the organoleptic characteristics thereof.

Food contact of plastic materials is governed by Regulation (EU) No 10/2011 and the related requirements.

Materials PVC/Vinyl or even Latex/Nitrile gloves (unless local legislation exists) are directly subject to these regulations.

They define:

- Positives lists of authorized constituents;
- The purity criteria applicable to some of these constituents;
- Special migration limits in foodstuffs for certain constituents;
- Maximum residual quantities of some constituents in the material;
- An overall migration limit in foods.
- A limit of metal content for plastic materials and objects.

Annex III of Regulation (EU) 10/2011 provides the list of stimulants to be used for testing migration of constituents of plastic materials and articles intended to come into contact with foodstuffs:

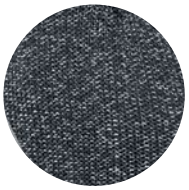
- Aqueous foods (pH > 4.5): Stimulants A, B and C.
- Acid food (pH ≤ 4.5): Stimulant B.
- Alcoholic foods (≤ 20%): Stimulant C.
- Alcoholic foods (> 20%): Stimulant D1.
- Fatty foods: Stimulants D1 and D2.
- Foods containing free surface fats: Stimulant D2.
- Dry foods: Stimulant E.

THE FIBERS

XTREMcut+

Your ally in extreme cutting conditions
Association of innovative fibers that guarantee optimal cut protection

DELTAnocut

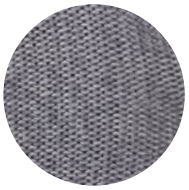


Polymer **high resistance**
Maximum dexterity
Washable: hygienic, gloves can be reused
Reduced thickness: Fine touch and better breathability
Soft touch: texture provides comfort and feeling of freshness all day

HEATnocut

For maximum safety and a good contact-heat protection
Cut resistance **adapted to the risk**
High level of **abrasion** resistance
Heat resistance **up to 482°F (250°C) depending on the model**

SOFTnocut



To combine safety and comfort
Excellent **cut** resistance
Maximum **abrasion** performance
Soft fibers: High level of **comfort**

ECOnocut

To combine safety and affordable price
Different levels of cutting resistance
Good abrasion performance
Economical fibers: good price

FULL CUT GLOVE RANGE

	18 GAUGE	15 GAUGE	13 GAUGE	10 GAUGE
A2 Packing, Electronics & repair, Coating, Finishing, Tiling, Assembly			 VENICUTB03  VENICUTB04	
A3 Automotive, Assembly, Home appliance assembly, Maintenance & service, Handling & installation of glazing		 VENICUTC01  VENICUTC02	 VENICUTC03  VENICUTC04	
A4 Handling of composite materials, Handling of glass plates, Handling & assembly of cladding, Finishing work on sharp pieces			 VV910  VV913  VENICUTD01  VENICUTD04  VENICUTD07  VENICUTD08  VECUT54BL  ECONOCUTDM1	 VENICUTD02
A5 Handling of heavy sharp parts, Handling of sharp metal parts, Cutting of metals			 VENICUTDX1	 VV737
A6 Intensive cutting works, Assembly of heavy pieces, Metal press forming, Stamping	 VENICUTF02		 VENICUTF01  VENICUTF03	

FCN29

Cowhide Grain Leather Palm/Split Back

•All day comfortable wear

EN 388
2121X

- Cowhide grain leather palm
- Cowhide split leather back
- Full index

ITEM #	SIZE	PACK
FCN2908	8-MD	12
FCN2909	9-LG	12
FCN2910	10-XL	12
FCN2911	11-2X	12

FBN49

Cowhide Grain Leather

•All day comfortable wear

EN 388
3122X

- Cowhide full grain leather
- Thickness: 0.90mm to 1.10mm

ITEM #	SIZE	PACK
FBN4907	7-SM	12
FBN4908	8-MD	12
FBN4909	9-LG	12
FBN4910	10-XL	12
FBN4911	11-2X	12

DS202RP

Top Quality Cowhide Docker

EN 388
4223X

- Cowhide split leather with cotton canvas lining
- Reinforcement on palm, thumb and index
- Canvas back with leather reinforcement
- Reinforced canvas cuff

ITEM #	SIZE	PACK
DS202RP	10-XL	12

CA615K

Heat Resistant Leather
Welder's Glove/Kevlar® Sewn

EN 388
3132X

EN 407
413X4X

EN 12477
TYPE A

- High quality heat resistant split leather
- Cuff with canvas lining
- Kevlar® Technology sewn
- Length: 35 cm

ITEM #	SIZE	PACK
CA615K	10-XL	12

DC103

Cowhide/Textile Docker

EN 388
2111X

- Cowhide split leather
- Canvas back with leather reinforcement
- Reinforced canvas cuff

ITEM #	SIZE	PACK
DC103	10-XL	12

ERB
A DELTA PLUS GROUP COMPANY

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Safety Map

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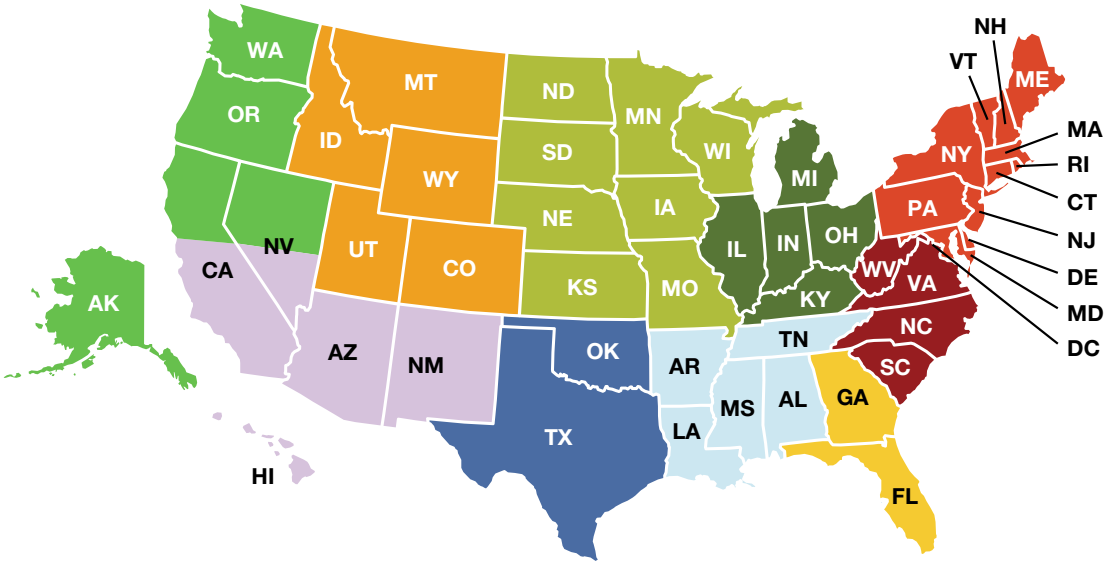

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