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HS Cat-05-Dec.-2017

KARAM®

HAND PROTEKTION

COLLECTION
2018

Unit - I Metal Processing Lucknow (U.P.)

Unit - II Textile Processing Lucknow (U.P.)

Unit - III Helmet & Shoes Processing Sitarganj (Uttarakhand)

KARAM is a name to reckon with in the field of Personal Protective Equipment. Serving the Nation since nearly two decades, KARAM has developed a strong expertise as a true solution provider for industrial safety covering Head to Toe. With a product range that spans over 500 products, KARAM now ventures into the space of providing world class Hand Protection equipment to its valued customers.

Bearing the quality seal of KARAM, these Hand Protection Gloves provide protection from hazards like mechanical hazards and chemical hazards.

INTRODUCTION TO GLOVES

Gloves Selection :

Hands are indispensable if an individual wishes to lead a self-sufficient life. They are fragile and irreplaceable, and require care and protection. It is extremely important to choose the right pair of gloves to combat the identified hazard and risk level.

KARAM offers a range of gloves that can be worn by the user under different work conditions. The recommendations are also based on the different manufacturing styles of these gloves, along with their different make-material and coatings, besides the different tests that these gloves pass.

STANDARDS FOR GLOVES

KARAM
knowing your needs better

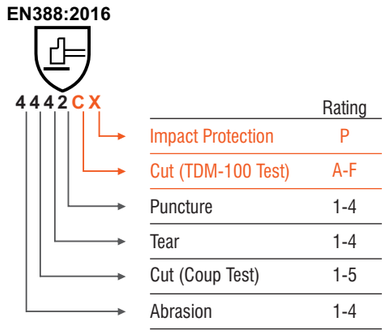
Standards for Gloves :

KARAM gloves are tested and certified to the latest norms for mechanical resistance, EN 388:2016, and chemical resistance EN 374:2016.

EN 420: This standard defines the general requirements for protective gloves in terms of construction, fitness of purpose, safety, etc.

EN 388: This standard specifies the capability of the gloves to protect the user against mechanical hazards, like abrasion, cut, tear, puncture, etc.

The latest norm for Mechanical Resistance, EN 388:2016, has been introduced incorporating the latest technological advances in glove manufacturing, including those by KARAM. Under this new standard, relevant KARAM gloves are tested for cut resistance through a more stringent TDM method, making them better in performance.



Performance level as per EN 388:2016					
Test	**1**	**2**	**3**	**4**	**5**
Abrasion resistance (cycle)	100	500	2000	8000	
Blade cut resistance (index)	1.2	2.5	5.0	10.0	20.0
Tear resistance (Newton)	10	25	50	75	-
Puncture resistance (Newton)	20	60	100	150	-

Performance level as per EN 388:2016						
Test	**A**	**B**	**C**	**D**	**E**	**F**
EN ISO Cut Resistance (Newton)	2	5	10	15	22	30
EN Impact Protection	Pass (P) or Fail (No Marking)					

Note : The letter X means that "not tested" or "not applicable"

EN 374: This standard specifies the capability of gloves to protect the user against chemicals and/or micro-organisms.

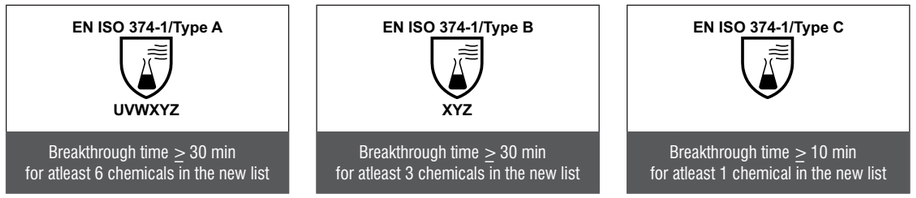
As per the latest standard, for the gloves that provide protection against chemicals, the materials used by Karam protect the hand by preventing the chemicals from reaching the inside of the glove. To be effective, each material not only resists the passage of the chemicals through its structure, termed 'permeation', but also resists degradation by the chemicals that would lead to damage such as cracking or holing.

The permeation test on KARAM gloves is carried out in accordance with EN 16523-1, where breakthrough time and the subsequent Permeation Performance levels are recorded as per actual, for a minimum of 6 chemicals, from an exhaustive list of 18.

Notes	EN 374:2003 Requirement	EN 374:2016 Requirement
1	List of 12 chemical agents that can be used to test glove performance	6 more chemicals have been added, making a possible 18 chemical agents to test
2	Conical flask used to indicate that gloves protect against 3 chemicals, beaker symbol for penetration only	Gloves will now be classified as Type A, B or C being tested against 6, 3 or 1 chemical respectively and displaying the fuming conical flask symbol
3	EN 374-3 Determination of resistance to permeation by chemicals	EN 374-3:2003 Superseded by EN 16523-1: 2015 Determination of material resistance to permeation by chemicals
4	No requirement	Introduction of EN 374-4: 2013 for a test of glove performance against chemical degradation
5	Micro-organism protection based upon penetration performance	Micro-organism split so that virus risk is a separately performed test according to EN 374-5: 2016, protection against bacteria/fungi is based upon penetration performance
6	Acceptable Quality Level (AQL) of level 2 for all gloves tested against penetration	3 defined AQL levels that gloves must meet or exceed depending upon customer requirements or application

Code	Chemical	Class	Code	Chemical	Class	Code	Chemical	Class
A	Methanol	Primary alcohol	G	Diethylamine	Amine	M	Nitric Acid 65%	Inorganic mineral acid, oxidising
B	Acetone	Ketone	H	Tetrahydrofuran	Heterocyclic ether compound	N	Acetic Acid 99%	Organic acid
C	Acetonitrile	Nitrile composite	I	Ethyl acetate	Ester	O	Ammonia 25%	Organic base
D	Dichlormethane	Chlorinated hydrocarbon	J	n-Heptane	Saturated hydrocarbon	P	Hydrogen peroxide 30%	Peroxide
E	Carbon Disulphide	Organic compound containing sulphur	K	Sodium hydroxide 40%	Inorganic base	S	Hydrofluoric acid 40%	Inorganic mineral acid
F	Toluene	Aromatic hydrocarbon	L	Sulphuric acid 96%	Inorganic mineral acid, oxidising	T	Formaldehyde 37%	Aldehyde

Note : 6 new Chemicals (M, N, O, P, S, T) have added into chemical list of EN ISO 374:2016.



Performance levels	Minutes
0	≤10
1	>10
2	>30
3	>60
4	>120
5	>240
6	>480

Certified to the latest Norm, all chemical resistant gloves by KARAM also necessarily pass the Degradation Test on them.

KARAM
knowing your needs better

PROKEM

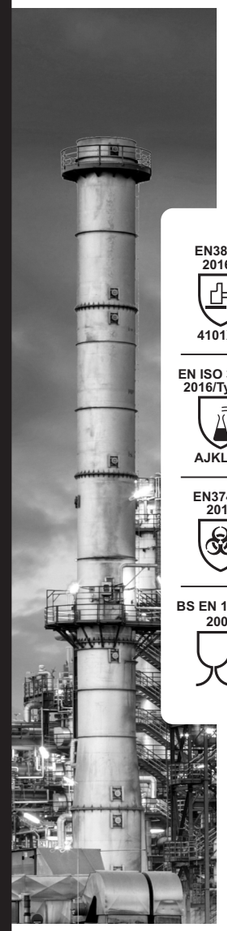
KARAM offers the Prokem range of gloves, exclusively for protection of hands against chemicals. Pioneering in the Indian market with this extensive range, the Prokem has distinctive features to offer, as below:

1. Specially designed hand moulds for the Prokem range of gloves, providing the highest level of ergonomics and fit to the wearer.
2. Tested to the latest EN standards, EN 374-2016, KARAM Prokem range passes the stringent permeation test for a vast range of chemicals; and KARAM is the only company in the market that provides the exact Breakthrough time of these chemicals. This range also passes the stringent Degradation test, as per the latest standard.
3. The Flock-lining done by KARAM on its Prokem range is of 100% cotton, to increase the absorption of perspiration. Even-distribution of Flocking is achieved by the unique Close Chamber Process (CCP) Technology.
4. Apart from chemical protection, the Prokem range also offers mechanical protection against abrasion, as per EN 388
5. The full range of Prokem is Silicon free, ensuring no residue is left, hence is an ideal choice in industries like automobile painting plants, etc.

FIVE POINT ADVANTAGE OF PROKEM

1. **Specially designed hand moulds for high dexterity and optimal fit**
2. **Latest Norm for Chemical Protection**
3. **100% Cotton Flockline-CCP technology**
4. **Enhanced Mechanical Protection as per New 2016 Standards**
5. **Silicon-free**

KARAM
knowing your needs better



CE 0120

EN388: 2016
4101X

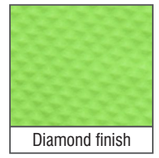
EN ISO 374-1: 2016/Type A
AJKLOT

EN374-5: 2016

BS EN 1186-5: 2002

HS 101 (Nitrile)

Ideal choice for Protection of hands against oil based chemicals


Diamond finish


Flocklined

KARAM Advantage: Karam uses a specialized grade of Nitrile that offers highest levels of flexibility to the glove.

CERTIFICATIONS

- **EN ISO 374:2016**
  - EN 374-1:2016-Permeation
  - EN 374-4:2013-Degradation
  - EN ISO 374-5:2016-Micro-Organisms
  - BS EN 1186-5 & 1186-14:2002-Food Grade
- **EN 388:2016**

Applications :

- Chemical process and its applications
- Oil and Petrochemical Industry
- Automotive manufacturing and OEM for automotive industries
- Wind blade manufacturing
- Aerospace Industry for cleaning engine fan blades and maintenance
- Food processing and handling operations
- General janitorial and cleaning operations
- Pharmaceutical Industry
- Paints and varnish manufacturing Industry
- Oil based machining parts manufacturing
- Application of pesticides
- Printing roller cleaning

Product Description :

- 100% nitrile compound gloves for protection against a vast range of oil based chemicals and solvents.
- Diamond finish for superior grip of smaller parts
- Excellent abrasion resistance
- Passes BS EN 1186 part 5:2002 & part 14:2002 - Materials and articles in contact with foodstuff
- Silicone Free, hence leaves no residue
- Flocklined from inside for reduced perspiration, hence offering greater comfort and performance, and better dexterity

PRODUCT SPECIFICATION

Product Code	Composition			Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Lining	Grip					
HS 101	Nitrile	Flocklined	Diamond	Straight	0.38 mm	330 mm (±5%)	7,8,9,10	1 pair packed per polybag /12 pairs in Bundle /144 pairs in a carton

CE 0120

EN388: 2016
2120X

EN ISO 374-1: 2016/Type A
AKLMOT

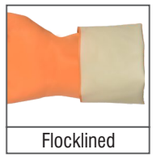
EN374-5: 2016

BS EN 1186-9: 2002

HS 111 (Latex Gloves)

Your perfect choice for protection of your hands against water based chemicals.


Pebble finish


Flocklined

KARAM Advantage:

a) Provided with Pebble Finish on both palm and back side of the glove, which reduces the retention of chemicals on the surface of the glove, besides offering better grip.

b) Specially treated for low risk of Latex Protein allergy, hence is better accepted than other Latex gloves.

CERTIFICATIONS

- **EN ISO 374:2016**
  - EN 374-1:2016-Permeation
  - EN 374-4:2013-Degradation
  - EN ISO 374-5:2016-Micro-Organisms
  - BS EN 1186-9:2002-Food Grade
- **EN 388:2016**

Applications :

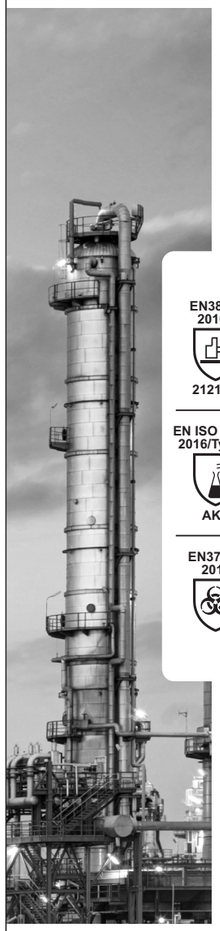
- Chemical process and its applications
- Heavy duty cleaning tasks
- Maintenance of plant and heavy equipment
- General industrial application
- Food processing and handling operations
- General janitorial and cleaning operations

Product Description :

- 100% natural latex compound gloves for protection against a vast range of ketones, alcohols epoxies, alkalis, caustics, detergents and other water based chemicals.
- Pebble finish for superior grip of smaller parts
- Heavy duty gloves for enhanced mechanical and chemical resistance
- Specially treated for lower risk of allergy
- Passes BS EN 1186 part 9:2002 - Materials and articles in contact with foodstuff
- Flocklined from inside for reduced perspiration, hence offering greater comfort and performance, and better dexterity

PRODUCT SPECIFICATION

Product Code	Composition			Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Lining	Grip					
HS 111	Natural Rubber	Flocklined	Pebble	Straight	0.60 mm	330 mm (±5%)	7,8,9,10	1 pair packed per polybag /12 pairs in Bundle /144 pairs in a carton



CE 0120

EN388: 2016
2121X

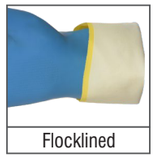
EN ISO 374-1: 2016/Type B
AKL

EN374-5: 2016

HS121 (Neoprene/Natural Rubber Gloves)

Your best choice for increased protection of your hands against chemicals and bio-fluids


Zig-zag finish


Flocklined

KARAM Advantage:

a) Has the maximum Puncture Resistance rating in its category, available in the Indian Market.

b) Has 100% neoprene coating on natural latex, hence offers better chemical stability, maintains flexibility over a wide temperature range, and resists degradation more than natural rubber.

CERTIFICATIONS

- **EN ISO 374:2016**
  - EN 374-1:2016-Permeation
  - EN 374-4:2013-Degradation
  - EN ISO 374-5:2016-Micro-Organisms
- **EN 388:2016**

Applications :

- Chemical process and its applications
- Oil and Petrochemical Industry
- Automotive manufacturing and OEM for automotive industries
- For handling of ketones, acids, salts and alkalis
- Aerospace industry for cleaning engine fan blades and maintenance
- Food processing and handling operations
- General janitorial and cleaning operations
- Spray Painting applications
- Cleaning and degreasing with soaps and strong detergent formulations

Product Description :

- A natural rubber and chloroprene blend for increased level of protection against a large range of chemicals
- Special Zig Zag finish for superior grip under wet or dry conditions
- Silicone Free, hence leaves no residue
- Flocklined from inside for reduced perspiration, hence offering greater comfort and performance, and better dexterity

PRODUCT SPECIFICATION

Product Code	Composition			Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Lining	Grip					
HS 121	Natural Rubber / Chloroprene Blend	Flocklined	Zig Zag	Straight	0.60 mm	330 mm (±5%)	7.5,8.5, 9.5,10.5	1 pair packed per polybag /12 pairs in Bundle /144 pairs in a carton

CE 0120

EN388: 2016
3121X

EN ISO 374-1: 2016/Type A
AKLMNO

EN374-5: 2016

HS 131 (Neoprene Gloves)

Your ideal choice for highest level of protection against a vast range of chemicals, with superior grip and high comfort


Pebble Finish


Flocklined

KARAM Advantage:

a) **Provided with Pebble Finish on both palm and back side of the glove, which reduces the retention of chemicals on the surface of the glove, besides offering better grip.**

b) **Extra thick (30 mil) glove, for better protection**

CERTIFICATIONS

- **EN ISO 374:2016**
  - EN 374-1:2016-Permeation
  - EN 374-4:2013-Degradation
  - EN ISO 374-5:2016-Micro-Organisms
- **EN 388:2016**

Applications :

- Chemical process and its applications
- Oil and Petrochemical Industry
- Automotive manufacturing and OEM for automotive industries
- For handling of ketones, acids, salts and alkalis
- Aerospace/Airline industry for cleaning engine fan blades and maintenance
- Battery manufacturing

Product Description :

- A chloroprene blend for increased level of protection against a large range of acids, solvents, alcohols and caustics
- Pebble finish for superior grip under wet or dry conditions
- Highly flexible at low temperatures
- Silicone Free- leaves no residue
- Flocklined from inside for reduced perspiration, hence offering greater comfort and performance, and better dexterity

PRODUCT SPECIFICATION

Product Code	Composition			Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Lining	Grip					
HS 131	Chloroprene	Flocklined	Pebble	Straight	0.75 mm	330 mm (±5%)	7,8,9,10	1 pair packed per polybag /12 pairs in Bundle /72 pairs in a carton

PROKUT

Prokut is the exclusive range of Gloves offered by KARAM that provides protection to the hands against mechanical hazards, like cut, abrasion, etc. This range by KARAM has the following unique features:

1. This range of Gloves by KARAM is tested and certified to the latest norm EN 388:2016, having been tested for resistance to abrasion, cut, tear and puncture. The high cut resistant gloves in this range pass the more stringent tests as laid out in the latest 2016 version of the norms.
2. This range of gloves has been constructed on specialized fully automatic high-end knitting machines, offering the finest quality and finish to the product.
3. Prokut Gloves come with the features of excellent grip, high comfort, breathability, and ergonomics.
4. This range of gloves is offered by KARAM in different coatings, to suit various different work conditions and applications
5. The protective area on of these gloves is well demarcated, against the palm area and the cuff region, to ensure a 100% safety at all times.

FIVE POINT ADVANTAGE OF PROKUT

1. **Different coatings to suit various work conditions and applications**
2. **Tested to latest Norm EN 388:2016 for abrasion resistance, cut, tear and puncture**
3. **Well defined demarcated area ensuring 100% safety**
4. **Superior ergonomics**
5. **Finest quality and finish**

CE 0120

EN388: 2016
3131X

HS 01 (Orange Liner with Black Crinkle Latex)

Your ideal choice for cut-free, superior grip material handling

KARAM Advantage:
- **This Glove by KARAM has excellent strength and highest level of breathability due to its finer gauge of polyester liner.**
- **This Glove has a high abrasion and tear resistance due to its more dense construction.**

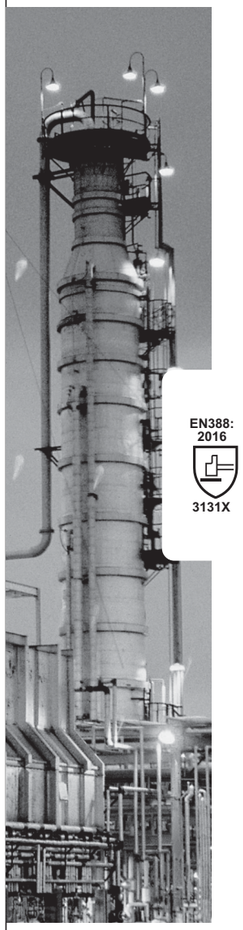
CERTIFICATIONS
EN 388:2016

Applications :
- Light to medium parts handling
- Construction material handling
- Maintenance work
- Warehousing

Product Description :
- Made of unique orange and black combination for better aesthetics.
- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- Created for a broad range of general working applications such as handling and carrying in dry and wet conditions.
- The crinkle latex coating provides an excellent grip and good mechanical performance for protection and durability.
- Ergonomic fit and conforms to hand shape

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Coating Color	Lining	Grip					
HS 01	Latex	Black	Polyester	Crinkle	Straight with beaded overlock thread and white elastic in the cuff area.	13 gauge	S(230mm), M(240 mm), LG(250mm), XL(260mm) (±5%)	M, LG, XL	1 pair packed per polybag /12 pairs in Bundle /240 pairs in a carton



CE 0120

EN388: 2016
3131X

HS 11 (White Liner with Orange Crinkle Latex)

Your best choice for general maintenance jobs, with excellent grip

KARAM Advantage:
- **This Glove by KARAM comes with more than 70% of the back of the hand area dipped in protective coating, including fully coated thumb, hence offers highest level of cut protection**
- **This glove has a high abrasion and tear resistance.**

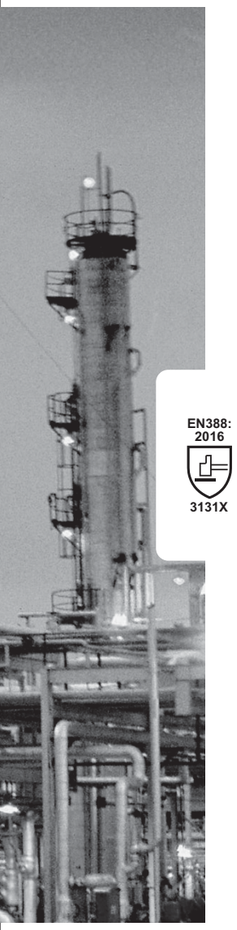
CERTIFICATIONS
EN 388:2016

Applications :
- Light to medium parts handling
- Vehicle maintenance
- General maintenance work
- Handling of slippery plastics, tiles and ceramics

Product Description :
- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- ¾ dipped from the back of the hand for extra protection.
- Fully coated thumb for extra protection
- Created for a broad range of general working applications such as handling and carrying in dry and wet conditions.
- The crinkle latex coating provides an excellent grip and good mechanical performance for protection and durability.
- Ergonomic fit and conforms to hand shape

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Coating Color	Lining	Grip					
HS 11	Latex	Orange	Polycotton	Crinkle Palm Coated with back ¾ Dip	Straight with beaded overlock thread and white elastic in the cuff area.	10 gauge	S(230mm), M(240 mm), LG(250mm) (±5%)	M, LG	1 pair packed per polybag /12 pairs in Bundle /120 pairs in a carton



CE 0120

EN388:
2016
3131X

HS 21 (White Liner with White PU Coating)

Your best choice for cut protection in pharmaceutical industry, with excellent grip

KARAM Advantage:
- **This glove by KARAM offers excellent grip along with a comfortable fit.**
- **It also offers higher abrasion and tear resistance, tested to the new 2016 Standard.**

CERTIFICATIONS

EN 388:2016

Applications :
- Small parts assembly such as bearings, springs etc.
- Assembly of electrical components
- Microprocessor handling
- Medicine manufacturing
- Cosmetics preparation
- Automotive industry and OEM manufacturers.

Product Description :
- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- Low lint gloves as its made from 100% Polyester yarn
- Economical protection for good grip, dexterity and comfort
- The polyurethane coating offers good tear and abrasion resistance.
- Ergonomic fit and conforms to hand shape

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Coating Color	Lining	Grip					
HS 21	PU	White	Polyester	Smooth palm dipped	Straight with beaded overlock thread and grey elastic in the cuff area.	13 gauge	S(230mm), M(240 mm), LG(250mm), XL(260mm) (±5%)	M, LG, XL	1 pair packed per polybag /12 pairs in Bundle /240 pairs in a carton

CE 0120

EN388:
2016
3131X

HS 22 (White Liner with Black PU Coating)

Your best choice for cut protection in pharmaceutical industry, with excellent grip

KARAM Advantage:
- **This glove by KARAM offers excellent grip along with a comfortable fit.**
- **It also offers higher abrasion and tear resistance, tested to the new 2016 Standard.**

CERTIFICATIONS

EN 388:2016

Applications :
- Small parts assembly such as bearings, springs etc.
- Assembly of electrical components
- Microprocessor handling
- Medicine manufacturing
- Cosmetics preparation
- Automotive industry and OEM manufacturers.

Product Description :
- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- Low lint gloves as its made from 100% Polyester yarn
- Economical protection for good grip, dexterity and comfort
- The polyurethane coating offers good tear and abrasion resistance.
- Ergonomic fit and conforms to hand shape

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Coating Color	Lining	Grip					
HS 22	PU	Black	Polyester	Smooth palm dipped	Straight with beaded overlock thread and grey elastic in the cuff area.	13 gauge	S(230mm), M(240 mm), LG(250mm), XL(260mm) (±5%)	M, LG, XL	1 pair packed per polybag /12 pairs in Bundle /240 pairs in a carton

CE 0120

EN388: 2016

4121X

HS 31 (White Liner with Grey Nitrile Coating)

Your perfect choice for protection against abrasion, offering excellent grip and dexterity.

KARAM Advantage: This glove by KARAM has superior quality of Nitrile used for coating to offer better protection from oils, in addition to offering better tear and abrasion resistance.

CERTIFICATIONS

EN 388:2016

Applications :

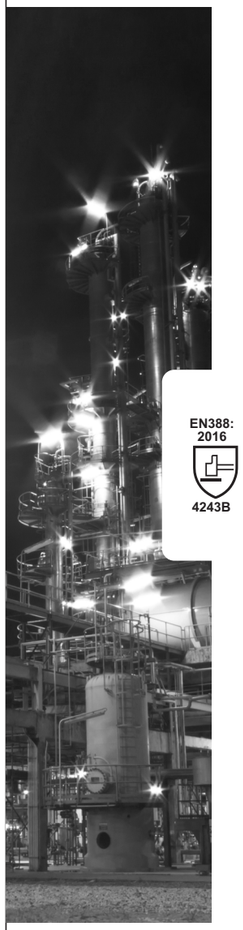
- Small parts assembly such as bearings, springs etc.
- Assembly of electrical components
- Minor maintenance Tasks
- Warehousing

Product Description :

- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- Low lint gloves as its made from 100% polyester yarn
- Economical protection for good grip, dexterity and comfort
- The nitrile coating offers protection from oils in addition to good tear and abrasion resistance
- Ergonomic fit and conforms to hand shape

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Coating Color	Lining	Grip					
HS 31	Nitrile	Grey	Polyester	Smooth palm dipped	Straight with beaded overlock thread and grey elastic in the cuff area.	13 gauge	S(230mm), M(240 mm), LG(250mm), XL(260mm) (±5%)	M, LG, XL	1 pair packed per polybag /12 pairs in Bundle /120 pairs in a carton



CE 0120

EN388: 2016

4243B

HS 41 (HPPE Liner with Grey PU Coating)

Your ideal choice of Glove for protection of your hands while handling sharper objects in most industrial environments.

KARAM Advantage:

- **This range of Gloves by Karam offers excellent protection to the hands while working with sharper objects, and greater force in harsher environments, because it passes the stringent cut resistance test as per the new standard.**
- **The unique nylon-spandex blended fiber of this glove offers excellent fit, better dexterity and high levels of elasticity.**

CERTIFICATIONS

EN 388:2016

Applications :

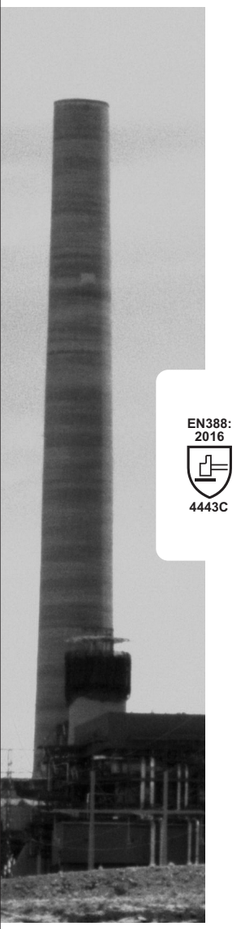
- Handling sharp objects
- Good for engineering, steel and automotive industry
- Handling of glass and metal sheets
- Assembly tasks that require cut protection

Product Description :

- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- Economical protection for good grip, dexterity and comfort
- The polyurethane coating offers protection from oils in addition to good cut, tear and abrasion resistance
- Ergonomic fit and conforms to hand shape
- Open back design for better ventilation
- Dark color helps to mask dirt on the gloves

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Materail	Coating Color	Lining	Grip					
HS 41	PU	Grey	HPPE	Smooth palm dipped	Straight with overlock thread beaded cuff area.	13 gauge	S(230mm), M(240 mm), LG(250mm), XL(260mm) (±5%)	M, LG, XL	1 pair packed per polybag /12 pairs in Bundle /120 pairs in a carton



CE 0120

EN388: 2016

4443C

HS 51 (HPPE Liner with Black PU Coating)

Your best choice for highest level of hand protection against sharp objects like glass, metal sheets etc.

KARAM Advantage: This glove is constructed of unique high cut resistant fiber, which offers the strong protection with the highest Cut-Resistant rating in the KARAM range of Gloves.

CERTIFICATIONS
EN 388:2016

Applications :

- Metal Fabrication
- Good for engineering, steel and automotive industry
- Handling of glass and metal sheets
- Assembly tasks that require cut protection
- Ceramic industry
- Aerospace and transportation
- Paper and carton industry

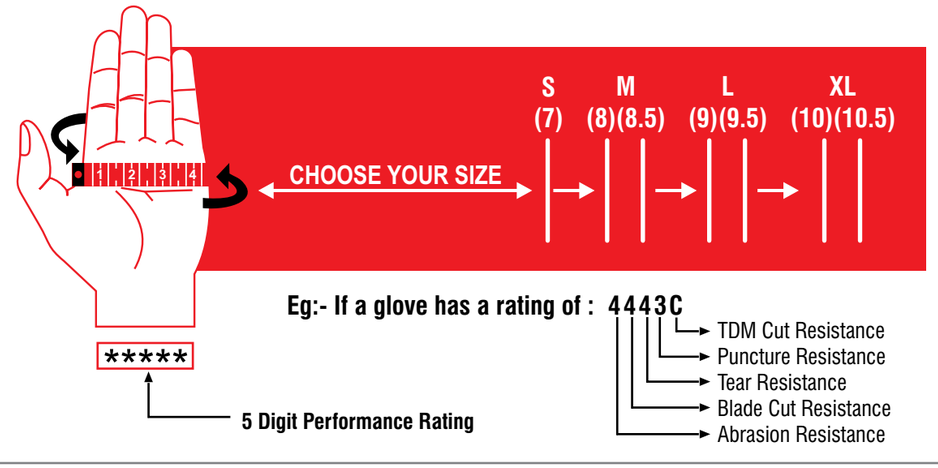
Product Description :

- Seamless liner from Japanese automatic knitting machines provides an evenly tensioned surface for excellent fit and dexterity
- Economical protection for good grip, dexterity and comfort
- The polyurethane coating offers protection from oils in addition to good cut, tear and abrasion resistance
- Ergonomic fit and conforms to hand shape
- Open back design for better ventilation
- Dark color helps to mask dirt on the gloves

PRODUCT SPECIFICATION

Product Code	Composition				Cuff Style	Thickness	Length	Sizes	Packaging
	Material	Coating Color	Lining	Grip					
HS 51	PU	Black	Polyester	Smooth palm dipped	Straight with overlock thread beaded cuff area.	13 gauge	S(230mm), M(240 mm), LG(250mm), XL(260mm) (±5%)	M, LG, XL	1 pair packed per polybag /12 pairs in Bundle /120 pairs in a carton

KARAM
knowing your needs better



PROKEM

Warning !

- This information does not reflect the actual duration of protection in the workplace and the differentiation between mixtures and pure chemicals.
- The chemical resistance has been assessed under laboratory conditions from samples taken from the palm only (except in cases where the glove is equal to or over 400 mm where the cuff is also tested) and relates only to the chemical tested. It can be different if the chemical is used in a mixture.
- It is recommended to check that the gloves are suitable for the intended use because the conditions at the workplace may differ from the type test depending upon temperature, abrasion and degradation. When used, protective gloves may provide less resistance to the dangerous chemical due to changes in physical properties. Movements, snagging, rubbing, degradation caused by the chemical contact, etc. may reduce the actual use time significantly.
- For corrosive chemicals, degradation can be the most important factor to consider in selection of chemical resistant gloves.
- The penetration resistance has been accessed under laboratory conditions and relates only to the tested specimen.
- Not tested against viruses.
- Before usage, inspect the gloves for any defect or imperfections.

Care Instructions :

- Please ensure that the gloves you plan to wear are clean, if not sure then please take a new pair.
- Inspection of the glove is very critical. A chemical can pass through the smallest hole to visual inspection for cracks, tears, holes, swelling or other damage.
- Washing hands with soap and water before wearing is recommended. Take appropriate care of any minor cuts or scrapes.
- While working with liquid chemicals it's recommended to seal the edge of the glove with a heavy duty tape or elastic band.
- Wash the outside of your gloves with soap and water before you remove them. Please don't use any harsh chemicals in the cleaning process.
- Store gloves in a proper container on finishing the task.
- For single use only.

Safety Tips :

- Immediate removal of glove if the chemical gets inside and then wash your hands. Report the Incident.
- Please note some people are allergic to Natural Latex/Rubber gloves. If any irritation or itching is felt then please use an alternatively recommended gloves for the specific activity.
- Ensure the proper length of the glove is worn according to the work activity.
- Please ensure compliance to the Safety Policy of your company.
- Always store gloves in a cool dry place away from chemicals.

PROKUT

Warning !

- PROKUT gloves are made up of 2 layers. The first layer is the textile knitted fabric and the second layer is the coating done on it of Latex/PU/Nitrile. Please note that the performance rating of the gloves is the performance of both the layers & not just of the outer layer.
- PROKUT gloves having a tear performance rating greater than level 1 should not be worn where there is a risk of entanglement by moving parts of the machine.
- PROKUT gloves do not require any special storage conditions.
- PROKUT gloves have been manufactured to meet the requirements of EN420 : sizing and dexterity and innocuousness of materials used. There are no known allergic or other harmful effects of the materials used in the manufacturing of these gloves. A list of substances used in the manufacturing of these gloves can be made available by KARAM on request.
- If found contaminated, the disposal of gloves should be done in a suitable manner with due consideration of the environment.

complete safety SOLUTIONS

KARAM also offers a wide range of Safety Products and Solutions for all your Safety needs.

Fixed Line System

Head Protection

Fall Protection

Face Protection

Foot Protection

Confined Space Entry

Ear Protection

Eye Protection

KTC KARAM®

TRAINING & CONSULTANCY

Key Highlights

- South East Asia's only GWO (Global Wind Organization) approved Training Provider.
- Only Training Center in India to impart Training as per NFPA standards on Technical Rescue: NFPA 1670 and NFPA 1006.
- Approved Training Provider (ATP) of TRARAsia, Singapore.
- Associate member of Industrial Rope Access Trade Association, UK (IRATA).
- 20,000 sq. ft. dedicated facility with Advanced Simulation of Height, Confined Space and Rescue and has Fully equipped Training Halls.
- Experienced faculty of 30+ local language Trainers.
- Latest and EN certified Training Equipment.
- Post-training support to implement principles and techniques at work-site.

50,000 + Trained on

Fall Protection and Rescue Competency

Standards Followed

- BS 8454: 2006 'Code of Practice for Delivery of Training and Education for Work at Height and Rescue.'
- GWO Basic Safety Training Standard.
- NFPA 1670 and NFPA 1006.
- IRATA ICOP.
- TRARASIA C-TRAIL.
- VODAFONE STANDARDS VOD001, VOD002.1 & VOD003.1

KARAM® MOBILE STUDIO

An initiative under the **"Safe India Drive" campaign.**

The KARAM Mobile Studio has been unstoppable since the time of its inception two years back. With Two Mobile Studios, KARAM is set out on its goal that no worker is left unsafe within the boundaries of India.

Together the Mobile Studios have covered more than 380 Top Indian Companies by providing Exclusive on Site Safety demonstrations & raised awareness to their nearly 57000 workers.

Spanning major States like Uttar Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Telangana, Gujarat, Pondicherry, Kerala and Rajasthan, the Mobile Studio is fully loaded and ready on wheels for its continued safety journey.

Unique attraction in the Mobile Studio is the "Hydraulic Testing Rig" to demonstrate Dynamic Fall test to educate workers on the usage of Fall Protection Equipment.

KARAM®
knowing your needs better

PROKEM CHEMICAL PERMEATION CHART

Chemical Name	CAS No	HS101 Nitrile		HS111 N.Latex		HS121 Bicolor		HS131 Neoprene	
		BTT	PL	BTT	PL	BTT	PL	BTT	PL
1-methoxy-2-propanol	107-98-2	>120	4	<10	0	>10	1	>30	2
1-methoxy-2-propylacetate	108-65-6	>60	3	<10	0	<10	0	>10	1
Acetic Acid 99%	64-19-7	>60	3	>60	3	>30	2	>240	5
Acetone	67-64-1	<10	0	>30	2	>10	1	>30	2
Acetonitrile	75-05-8	>10	1	<10	0	>10	1	>30	2
Acrylic acid	79-10-7	>30	2	>30	2	>60	3	>60	3
Acrylonitrile	107-13-1	<10	0	<10	0	<10	0	>10	1
Allyl alcohol	107-18-6	>30	2	>10	1	>30	2	>120	4
Ammonia 10%	1336-21-6	>480	6	>240	5	>120	4	>240	5
Ammonium Acetate 50%	631-61-8	>480	6	>480	6	>480	6	>480	6
Ammonium Chloride 50%	12125-02-9	>480	6	>480	6	>480	6	>480	6
Ammonium hydroxide 25%	1336-21-6	>240	5	>120	4	>120	4	>120	4
Ammonium Nitrate 50%	6484-52-2	>480	6	>60	3	>480	6	>480	6
Benzene	71-43-2	>10	1	<10	0	<10	0	<10	0
Benzoyl chloride	98-88-4	>10	1	<10	0	<10	0	<10	0
Bisphenol A	80-05-7	>480	6	>480	6	>480	6	>480	6
3-Bromopropionic acid	590-92-1	>480	6	>120	4	>480	6	>480	6
Butyl acetate	123-86-4	>60	3	<10	0	<10	0	>10	1
Butyl alcohol	71-36-3	>480	6	>30	2	>60	3	>480	6
Butyl glycol	111-76-2	>240	5	<10	0	>60	3	>120	4
Calcium Chloride 50%	10043-52-4	>240	5	>240	5	>480	6	>480	6
Calcium Hydroxide 50%	1305-62-0	>480	6	>240	5	>480	6	>480	6
Calcium Hypochlorite	7778-54-3	>480	6	>240	5	>480	6	>480	6
Calcium Nitrate 50%	10124-37-5	>480	6	>240	5	>480	6	>480	6
Carbon disulfide	75-15-0	<10	0	<10	0	<10	0	<10	0
Carbon Tetra Chloride	56-23-5	>120	4	>30	2	<10	0	<10	0
Chloroform-D	865-49-6	<10	0	>10	1	<10	0	<10	0
Citric Acid 50%	77-92-9	>480	6	>480	6	>480	6	>480	6
Coal tar	8007-45-2	>480	6	<10	0	>10	1	>10	1
Crude oil	8002-05-9	>480	6	<10	0	>10	1	>10	1
Cyclo-hexane	110-82-7	>480	6	>10	1	>10	1	>30	2
Cyclo-Hexanol	108-93-0	>480	6	>240	5	>480	6	>480	6
Cyclohexanone	108-94-1	>30	2	<10	0	>30	2	>30	2
Dibutyl Phtalate	84-74-2	>480	6	<10	0	>30	2	>60	3
Diesel Oil	68334-30-5	>480	6	<10	0	>30	2	>240	5
Diethylamine	109-89-7	>30	2	<10	0	<10	0	<10	0
Diethyl ether	60-29-7	>60	3	<10	0	<10	0	<10	0
Dimethyl sulfoxide (DMSO)	67-68-5	>120	4	>240	5	>480	6	>480	6
Dimethylformamide (DMF)	68-12-2	>10	1	>30	2	>60	3	>30	2
Distillate hydrotreated light	64742-47-8	>480	6	<10	0	>10	1	>10	1
DOP	117-81-7	>480	6	>480	6	>480	6	>480	6
Ethanol	64-17-5	>120	4	>60	3	>60	3	>240	5
Ethyl acetate	141-78-6	>10	1	<10	0	<10	0	>10	1
Ethylamine	75-04-7	>60	3	<10	0	>30	2	>60	3
Ethylbenzene	100-41-4	<10	0	<10	0	<10	0	<10	0
Ethylene Glycol	107-21-1	>480	6	>480	6	>480	6	>480	6
Ethylglycol acetate	111-15-9	>60	3	<10	0	>10	1	>30	2
Formaldehyde 30%	50-00-0	>480	6	>480	6	>480	6	>480	6
Formaldehyde 37%	50-00-0	>240	5	n/a		n/a		n/a	
Formic Acid 90%	64-18-6	>30	2	>120	4	>120	4	>480	6
Freon 113 (CFC 113)	76-13-1	>480	6	<10	0	>10	1	>10	1
Gamma Butyrolcatone	96-48-0	<10	0	>120	4	>120	4	>120	4
Gasoline, natural	8006-61-9	>120	4	<10	0	<10	0	>10	1
Glutaraldehyde 50%	111-30-8	>480	6	>480	6	>480	6	>480	6
Glycerol	56-81-5	>480	6	>480	6	>480	6	>480	6
Glycol	111-46-6	>480	6	>480	6	>480	6	>480	6
Heptane	142-82-5	>480	6	<10	0	<10	0	>30	2
Hexamethyldisilazane	999-97-3	>480	6	>10	1	>30	2	>30	2
Hexane	110-54-3	>480	6	>10	1	<10	0	>30	2
Hydrochloric Acid (30%)	7647-01-0	>480	6	>480	6	>480	6	>480	6
Hydrofluoric Acid (14%)	7664-39-3	>480	6	>480	6	>480	6	>480	6
Hydrogen Peroxide 31%	7722-84-1	>480	6	>480	6	>480	6	>480	6
Iso-Octane	540-84-1	>480	6	>10	1	>30	2	>120	4
Iso-Propanol	67-63-0	>480	6	>60	3	>60	3	>120	4
Isophorone	78-59-1	>120	4	>10	1	>10	1	>30	2
Kerosene	8008-20-6	>480	6	>60	3	>60	3	>120	4
Maleic acid	110-16-7	>480	6	>480	6	>240	5	>480	6

Chemical Name	CAS No	HS101 Nitrile		HS111 N.Latex		HS121 Bicolor		HS131 Neoprene	
		BTT	PL	BTT	PL	BTT	PL	BTT	PL
Methanol	67-56-1	>30	2	>60	3	>60	3	>60	3
Methylene Chloride (DCM)	75-09-2	<10	0	<10	0	<10	0	<10	0
Methylethylketone (MEK)	78-93-3	<10	0	>10	1	>10	1	>10	1
Methyl Isobutyl Ketone	108-10-1	>10	1	<10	0	<10	0	>10	1
Methyl acrylate	96-33-3	<10	0	<10	0	<10	0	<10	0
Methylamine 40%	74-89-5	>480	6	<10	0	>30	2	>240	5
Methyl Methacrylate	80-62-6	>10	1	<10	0	<10	0	<10	0
Methyl-t-butyl ether	1634-04-4	>480	6	<10	0	<10	0	<10	0
Mineral oil	8012-95-1	>480	6	>10	1	>10	1	>10	1
Monochlorobenzene	108-90-7	<10	0	<10	0	<10	0	<10	0
Monoethanolamine	141-43-5	>480	6	>480	6	>480	6	>480	6
Naptha VM&P	8030-30-6	>60	3	<10	0	>10	1	>30	2
Naptha desulfurize heavy	64742-82-1	>240	5	<10	0	>10	1	>10	1
Naptha hydrotreated light	64742-49-0	>480	6	<10	0	>10	1	>10	1
Nitric Acid 20%	7697-37-2	>480	6	>480	6	>480	6	>480	6
Nitric Acid 65%	7697-37-2	n/a		n/a		n/a		>480	6
Nitrobenzene	98-95-3	>60	3	<10	0	<10	0	<10	0
N-methyl-2-pyrolidone	872-50-4	>10	1	<10	0	>10	1	>10	1
Octane	111-65-9	>480	6	>10	1	>10	1	>30	2
Oleic Acid	112-80-1	>480	6	>480	6	>480	6	>480	6
Oxalic Acid (Pure)	144-62-7	>480	6	>480	6	>480	6	>480	6
Paraffin oil	8012-95-1	>480	6	>480	6	>480	6	>480	6
Peracetic acid 39%	79-21-0	>60	3	>10	1	>120	4	>240	5
Perchloroethylene	127-18-4	>120	4	<10	0	>10	1	>10	1
Perchloric Acid (70%)	7601-90-3	>120	4	>240	5	>240	5	>480	6
Phenol	108-95-2	>30	2	>60	3	>240	5	>480	6
Phosphoric Acid (85%)	7664-38-2	>480	6	>480	6	>480	6	>480	6
Propanol	71-23-8	>480	6	>60	3	>120	4	>480	6
Propionitrile	107-12-0	<10	0	<10	0	>10	1	>60	3
Propylacetate	109-60-4	>10	1	<10	0	<10	0	<10	0
Propylene glycol	57-55-6	>480	6	>480	6	>480	6	>480	6
Potassium Nitrate 50%	7757-79-1	>480	6	>60	3	>480	6	>480	6
Potassium Phosphate 50%	7758-11-4	>480	6	>480	6	>480	6	>480	6
Pinerazine aq solution	110-85-0	>240	5	>480	6	>480	6	>480	6
Pyridine	110-86-1	<10	0	<10	0	<10	0	<10	0
Sodium Carbonate	497-19-8	>480	6	>480	6	>480	6	>480	6
Sodium Nitrate 50%	7631-99-4	>480	6	>60	3	>480	6	>480	6
Sodium Sulphate 50%	7757-82-6	>480	6	>480	6	>480	6	>480	6
Sodium Hydroxide 40%	1310-73-2	>480	6	>480	6	>480	6	>480	6
Sodium Hypochlorite 10%	7681-52-9	>120	4	>240	5	>120	4	>480	6
Sodium Phosphate	7601-54-9	>480	6	>480	6	>480	6	>480	6
Stoddord solvent	8052-41-3	>480	6	<10	0	>120	4	>240	5
Styrene	100-42-5	>10	1	<10	0	<10	0	<10	0
Sulphuric Acid 96%	7664-93-9	>120	4	>120	4	>60	3	>240	5
Tetrahydrothiophene	110-01-0	>10	1	<10	0	<10	0	<10	0
Tetrahydrofuran (THF)	109-99-9	<10	0	<10	0	<10	0	<10	0
Thionylchloride	7719-09-7	<10	0	<10	0	<10	0	<10	0
Toluene	108-88-3	>10	1	<10	0	<10	0	>10	1
Trichloroethylene	79-01-6	>10	1	<10	0	<10	0	<10	0
Tricresyl phosphate	1330-78-5	>480	6	>480	6	>480	6	>480	6
Triethanolamine	102-71-6	>480	6	>480	6	>480	6	>480	6
Triethylamine	121-44-8	>480	6	<10	0	<10	0	>10	1
White spirit/ mineral spirit	64742-88-7	>480	6	>10	1	>30	2	>60	3
Xylene	1330-20-7	>30	2	<10	0	<10	0	>10	1

Important Note:
The data provided in the recommendation list was based on the test at the laboratory conditions (new gloves, no mechanical exertion, room temperature) and the judgement of the data available at the time. This data is served only as a guide when selecting the appropriate gloves for chemical protection, real conditions of use are impossible to be simulated exactly and controlled at lab. Thus, the suitability of a glove for a specific job shall be determined through the evaluation of the user.

* BTT = Break Through Time; PL = Performance Level

⚠ Disclaimer

This information on the product is based upon technical data that KARAM obtained under laboratory conditions and believes to be reliable. KARAM does not guarantee results and take no liability or obligation in connection with this information. As conditions of end use are beyond our control it is the user's responsibility to determine the hazard levels and the use of proper personal protective equipment. Persons having technical expertise should undertake evaluation under their own specific end-use conditions, at their own discretion and risk. Please ensure that this information is only used to check that the product selected is suitable for the intended use. Any product that is damaged, torn worn or punctured should be discontinued from usage immediately.