



TITLE:
SPECIFICATION FOR HAND PROTECTION

Part 1: Protective Gloves

Document No.	01/027-1 KP1/6C/13/TSP/03/917-1
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ANNEX A: **Guaranteed Technical Particulars** (to be filled and signed by the Manufacturer and submitted together with relevant copies of the Manufacturer's catalogues, brochures, drawings, technical data, sales records for previous five years, four customer reference letters, details of manufacturing capacity, the manufacturer's experience and copies of complete type test certificates and type test reports for tender evaluation, all in English Language)

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0.1 Circulation List

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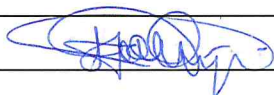
0.2 Amendment Record

Rev No.	Date (YYYY-MM-DD)	Description of Change	Prepared by (Name & Signature)	Approved by (Name & Signature)
KP1/3CB/TSP/01/003-8 Issue1 rev 0	2012-12-27	Cancels and replaces KP1/3CB/TSP/01/003 issue 2 Rev 0 dated and all previous issues	S. Kimitei	G. Owuor
Issue 2 Rev 0	2015-05-20	Cancels and replaces KP1/3CB/TSP/01/003-8 issue 1 Rev 0 dated 2012-12-27 and all previous issues	Nancy Wairimu Michael Apudo	Dr. Eng. Peter Kimemia 

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FOREWORD

This specification has been prepared by the Standards Department in collaboration with Human Resource Services Department; Safety, Health & Work Environment (SHE) Department of The Kenya Power and Lighting Company Limited (KPLC/Kenya Power) and The Kenya Electrical Trade & Allied Workers Union (KETAWU). The specification lays down requirements for – Protective Gloves. It is intended for use by Kenya Power in purchasing of these items.

The supplier shall submit information which confirms manufacturer’s satisfactory service experience with products which fall within the scope of this specification.

1. SCOPE

- 1.1. This document specifies the design and performance, methods of test, marking and user information for protective gloves for use in Industrial Work (Electrical and Mechanical) by Kenya Power company employees.
- 1.2. The specification covers performance requirements for the gloves designed to protect the wearer’s hands. The scope of this specification shall include:
 - a) Mechanical gloves
 - b) Welding gloves
 - c) Drivers gloves
 - d) Cotton work gloves
 - e) Linesman’s gloves
- 1.3. The specification stipulates the minimum requirements for the Protective Gloves in the company and it shall be the responsibility of the supplier to ensure adequacy of the design, good engineering practice, adherence to the specification and applicable standards and regulations as well as ensuring good workmanship in the manufacture of the Protective Gloves for The Kenya Power & Lighting Company.
- 1.4. This specification does not purport to include all the necessary provisions of a contract.

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2. REFERENCES

The following standards contain provisions which, through reference in this text constitute provisions of this specification. Unless otherwise stated, the latest editions (including amendments) apply:

- ISO 20471: High visibility clothing – Test methods and requirements.
- BS EN 420: Protective gloves. General requirements and test methods
- BS EN 388: Protective gloves against mechanical risks.
- BS EN 12477: Protective gloves for welders.
- BS EN 407: Protect against heat and fire
- BS EN 7318: Specification for industrial sewing thread made from linen (flax) or cotton

3. TERMS AND DEFINITIONS

For the purpose of this specification, the definitions given in the reference standards shall apply.

4. REQUIREMENTS


4.1. OPERATING CONDITIONS

The Protective gloves shall be suitable for use in electrical and mechanical Work, outdoors in tropical climate with average ambient temperature of +30°C with a minimum of -1°C and a maximum of +40°C.

4.2. GENERAL REQUIREMENTS.

4.2.1. Design and construction

4.2.1.1. Protective gloves shall meet all the requirements of performance, innocuousness, design, construction and dexterity of BS EN 420 and that of this specification.

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- 4.2.1.2. Protective gloves shall offer the greatest possible degree of protection in the foreseeable conditions of end use. When seams are included, the strength of these seams shall not reduce the overall performance of the gloves.
- 4.2.1.3. All protective gloves shall not cause any harm to the user. The pH of each glove shall be between 3.5 and 9.5 and the Chromium (VI) content shall be below detection (< 3 ppm).
- 4.2.1.4. Care instructions manual shall be provided; the levels of performance shall not be reduced after the maximum recommended number of cleaning cycles.

4.3. SPECIFIC DESIGN REQUIREMENTS

4.3.1. Mechanical Gloves

4.3.1.1. General

- 4.3.1.1.1. The protective gloves - mechanical gloves shall be designed, manufactured and tested to clause 4.2, BS EN 388 and the requirements of this specification.
- 4.3.1.1.2. It shall be a five-finger glove designed to provide protection to all of the hand up to the wrist. The coverage shall be continuous except for a slit on the ulnar surface of the palm to aid putting on and taking off the glove.
- 4.3.1.1.3. The gloves shall provide protection against the following mechanical risks: abrasion, blade cut, tear, puncture resistances.
- 4.3.1.1.4. Each glove shall have a performance level 3:5:4:4:3 in accordance with BS EN 388 and Table 1; representing abrasion, blade cut, dexterity, tear and puncture properties respectively.

Table 1: The levels of performance of mechanical gloves to BS EN 388

Test	Unit	Performance level	Requirement
Abrasion resistance	Number of cycles	3	2000
Blade cut resistance	Index	5	20.0
Dexterity*	mm	4	6.5
Tear resistance	N	4	75

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Test	Unit	Performance level	Requirement
Puncture resistance	N	3	100
*pin that can be picked up with gloved hand 3 times / 30 seconds (mm)			

4.3.1.1.5. The gloves shall protect the wearer from mechanical risks and shall be designed to offer grip, dexterity and have anti-static properties.

4.3.1.1.6. The mechanical properties shall be shown by a pictogram for mechanical risk as shown in Fig. 2 below followed by four performance levels numbers.

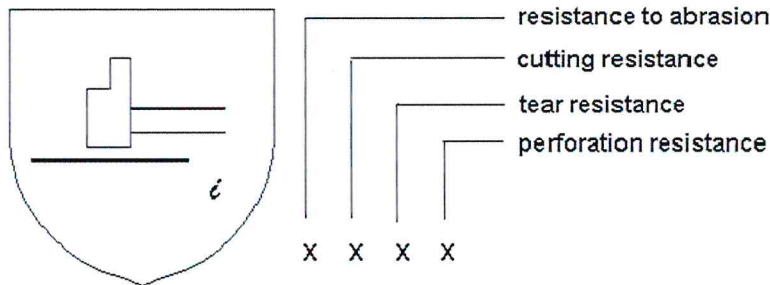


Fig. 2: Pictogram for Mechanical resistant gloves

4.3.1.2. Material of manufacture

4.3.1.2.1. The mechanical glove shall be made from high dexterity natural leather such as flexible goatskin, pigskin or side-split leather or equivalent.

4.3.1.2.2. The base of the mechanical glove shall be made from a multilayer technology of cotton/ high-performance polyethylene (HPPE) (Dyneema®)/glass and its dual nitrile coating, to provide excellent cutting protection (level 5) and also achieve impressive resistance times and excellent ratings (levels 3:5:4:3) as per BS EN 388.

4.3.1.2.3. The mechanical gloves shall have a palm and fingertips coated, ribbing. The coating shall be made from a high Performance Elastomer (HPE) with soft grip foam or a High-performance vinyl (HPV), grip nubs or equivalent.

4.3.1.3. Size designation

The sizing of the protective gloves shall be as per Table 2 in accordance with BS EN 420.

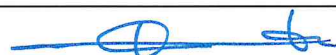
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Table 2: Sizing of gloves in accordance with BS EN 420

Glove size	Fits hand size	Hand circumference (mm)	Hand length (mm)	Minimum length of glove A (mm)	Palm width B mm
6	6	152	160	220	105
7	7	178	171	230	110
8	8	203	182	240	120
9	9	229	192	250	126
10	10	254	204	260	130
11	11	279	215	270	135

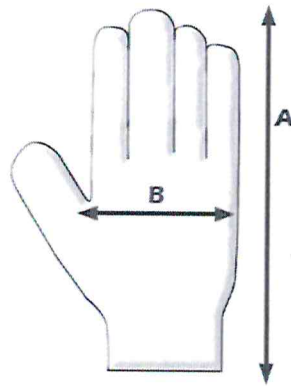


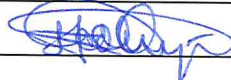
Fig. 1: Glove sizing



Fig. 3: Illustration of a mechanical resistant glove

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4.3.2. Welding gloves

4.3.2.1. General

- 4.3.2.1.1. The welding gloves shall be designed, manufactured and tested to BS EN 420, BS EN 407 and BS EN 12477 and the requirements of clause 4.2 of this specification.
- 4.3.2.1.2. The welder's glove shall have a reinforced palm and thumb, with a good level of abrasion resistance, protection against contact and convective heat ideal for most welding processes. It shall possess a sock lining and a durable soft leather to offer the welders, a comfortable solution for medium to heavy duty welding.
- 4.3.2.1.3. The glove shall be a Type B glove in accordance with BS EN 12477 for better dexterity and to suit TIG welding. It shall possess the qualities as per Table 3.

Table 3: The levels of performance of mechanical gloves to BS EN 12477

Requirement	Standard	Type B
Electric Isolation	EN 1149-2	R ≥ 105 Ω
Abrasion Resistance	EN 388	1 (100 cycles)
Cut Resistance	EN 388	1 (1.2)
Tear Resistance	EN 388	1 (10N)
Puncture Resistance	EN 388	1 (20N)
Burning Behaviour	EN 407	2
Contact Heat	EN 407	1 (T = 100°C)
Convective Heat	EN 407	0
Metal Splashes	EN 407	2 (15 drops)
Dexterity*	EN 420	4 (≤ 6.5 mm)
*pin that can be picked up with gloved hand 3 times / 30 seconds (mm)		

- 4.3.2.1.4. The pictograms for welder's glove showing mechanical and thermal properties are as shown in Fig. 4 followed by four performance levels numbers.

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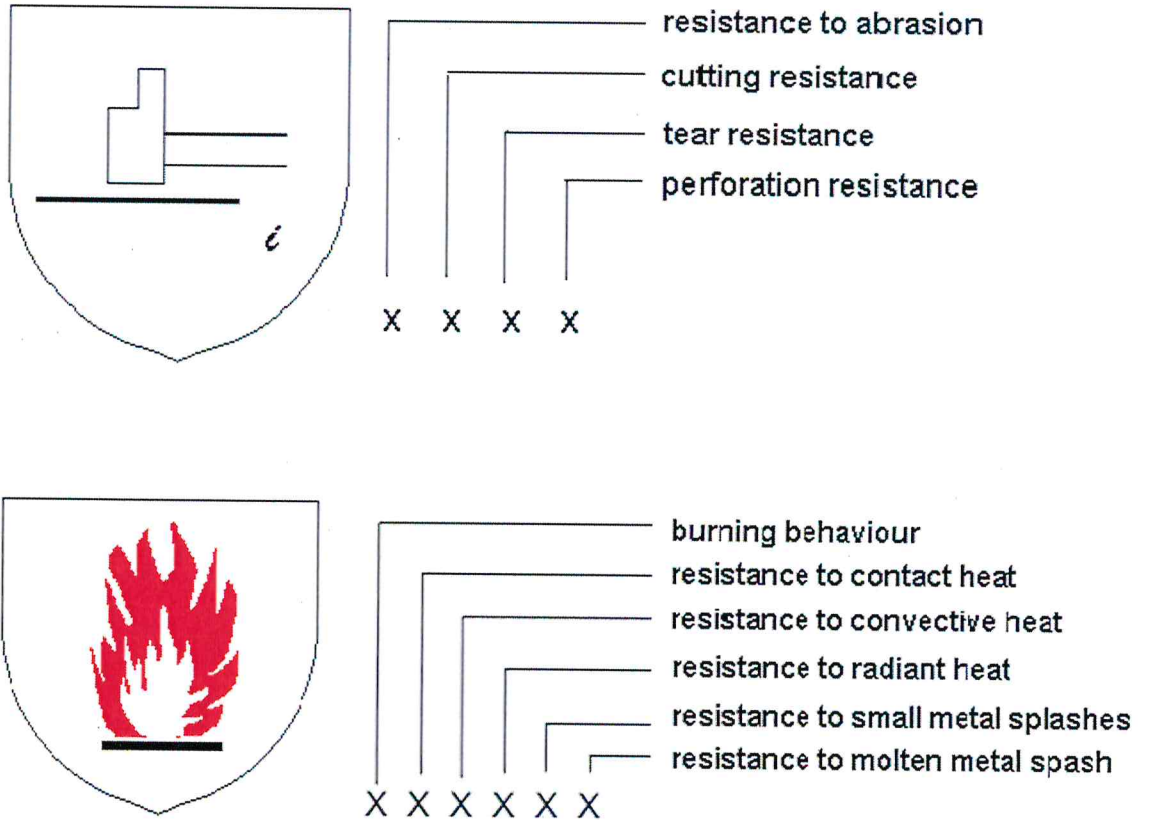


Fig. 4: Pictogram for welder gloves

4.3.2.2. Material

The welder's gloves shall be made from high dexterity natural leather such as flexible goatskin, pigskin or side-split leather or equivalent with a cotton fleece lining and at least 110mm cuffs and some with a para-aramid synthetic fiber (Kevlar®) sewing or palm patches.

4.3.2.3. Sizes

The sizes shall be as per BS EN 12477 and Table 4 and shall resemble the Fig. 4 in shape and appearance.

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Table 4: Sizing of welder gloves according to BS EN 12477

Glove size	Fits hand size	Hand circumference (mm)	Hand length (mm)	Minimum length of glove A (mm)	Palm width B mm
6	6	152	160	300	105
7	7	178	171	310	110
8	8	203	182	320	120
9	9	229	192	330	126
10	10	254	204	340	130
11	11	279	215	350	135

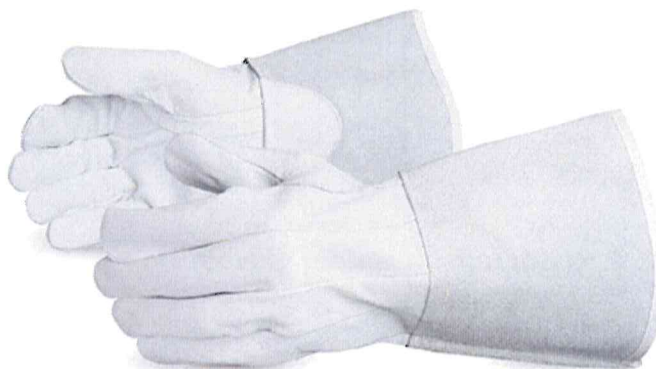


Fig. 5: Illustration of a welding glove

4.3.3. Drivers gloves

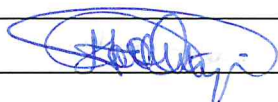
4.3.3.1. General

4.3.3.1.1. The driver's gloves shall be designed, manufactured and tested to clause 4.2 and BS EN 388.

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- 4.3.3.1.2. It shall be a five-finger glove designed to provide protection to all of the hand up to the wrist. The coverage shall be continuous except for a slit on the ulnar surface of the palm to aid putting on and taking off the glove.
- 4.3.3.1.3. The gloves shall provide protection against the following mechanical risks: abrasion, blade cut, tear, puncture resistances.
- 4.3.3.1.4. Each glove shall have performance level 3:5:4:3 in accordance with to BS EN 388 representing abrasion, blade cut, tear and puncture properties respectively.

Table 5: The levels of performance of mechanical gloves to BS EN 388

Test	Unit	Performance level	Requirement
Abrasion resistance	Number of cycles	3	2000
Blade cut resistance	Index	5	20.0
Dexterity*	mm	4	6.5
Tear resistance	N	4	75
Puncture resistance	N	3	100

*pin that can be picked up with gloved hand 3 times / 30 seconds (mm)

- 4.3.3.1.5. The gloves shall protect the wearer from mechanical risks and shall be designed to offer grip, dexterity and have anti-static properties.
- 4.3.3.1.6. The mechanical properties shall be shown by a pictogram for mechanical risk as shown in Fig. 6 below followed by four performance levels numbers.

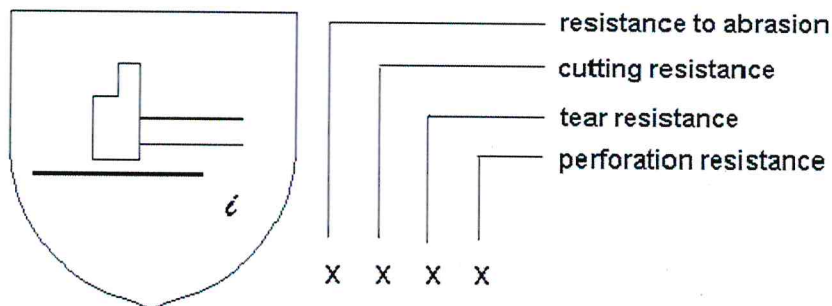



Fig. 6: Pictogram for driver's gloves

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4.3.3.2. Material

- 4.3.3.2.1. The driver's gloves shall be 100% natural leather such as top grain cowhide or equivalent, keystone thumb, regular grade, high visibility finger tips, and shirred elastic back.
- 4.3.3.2.2. The leather thickness shall be 1.0 - 1.1 (+/- 0.1) mm



Fig. 7: Illustration of a driver's gloves

4.3.3.3. Size designation

- 4.3.3.3.1. The sizing of the protective gloves shall be as per Table 6 in accordance with BS EN 420.

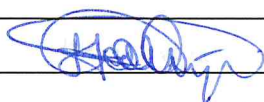
Table 6: Sizing of gloves in accordance with BS EN 420

Glove size	Fits hand size	Hand circumference (mm)	Hand length (mm)	Minimum length of glove A (mm)	Palm width B mm
6	6	152	160	215	105
7	7	178	171	230	110
8	8	203	182	235	120
9	9	229	192	245	126

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Glove size	Fits hand size	Hand circumference (mm)	Hand length (mm)	Minimum length of glove A (mm)	Palm width B mm
10	10	254	204	255	130
11	11	279	215	260	135

4.3.4. Cotton work gloves

4.3.4.1. General Requirements

- 4.3.4.1.1. The protective gloves – cotton work gloves shall be designed, manufactured and tested to BS EN 420, BS EN 388 and BS EN 7318 and the requirements of this specification.
- 4.3.4.1.2. It shall be a five-finger glove designed to provide protection to all of the hand up to the wrist. The coverage shall be continuous except for a slit on the ulnar surface of the palm to aid putting on and taking off the glove. The palm shall be coated with rubber or PVC as shown in Fig. 8.
- 4.3.4.1.3. The gloves shall provide protection against the following mechanical risks: abrasion, blade cut, tear, puncture resistances.
- 4.3.4.1.4. Each glove shall have performance level 2:1:2:1 in accordance with to BS EN 388 representing abrasion, blade cut, tear and puncture properties respectively and as shown in Table 7.

Table 7: Performance requirements of cotton work gloves

Test	Unit	Performance level	Requirement
Abrasion resistance	Number of cycles	2	500
Blade cut resistance	Index	1	1.2
Dexterity	mm	4	6.5*
Tear resistance	N	2	25
Puncture resistance	N	1	20

*pin that can be picked up with gloved hand 3 times / 30 seconds (mm)

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4.3.4.2. Materials of manufacture

- 4.3.4.2.1. Unbleached 100% cotton drill with mass per unit area of 355 g/m² with a tolerance of 19 g/m² conforming to fabric reference C5 of KS 541 or equivalent.
- 4.3.4.2.2. Knitted fabrics for cuffs shall be 2/20 and all cotton.
- 4.3.4.2.3. The cotton sewing thread shall conform to BS EN 7318 and shall have properties as per Table 8.



Fig. 8: Rubber or PVC coated work gloves

Table 8: Requirement for cotton sewing thread

Cotton count (Decitex)	Construction	Minimum length m/kg	Single thread breaking load Newton (KgF)
50s/4 (120dtex x 4)	4 cords (2strands, each 2 fold)	19 050	9.8 (1.00)

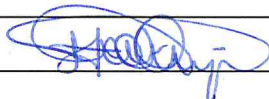
4.3.4.3. Size designation

The sizing of the protective gloves shall be as per Table 6 in accordance with BS EN 420.

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4.3.5. Linesman's gloves

4.3.5.1. General design

- 4.3.5.1.1. The linesman's gloves shall be a gauntlet type glove that conforms to all the provisions of clauses 4.2 and 4.3.1.1 for mechanical and innocuousness properties.
- 4.3.5.1.2. The glove shall be designed, manufactured and tested to BS EN 420 and BS EN 388 standards.
- 4.3.5.1.3. The glove shall be designed to a performance thumb/palm patch, which reinforces critical-wear areas with a double layer of leather.
- 4.3.5.1.4. The linesman's gloves shall have a performance level 3:5:4:3 in accordance with BS EN 388 and Table 2 of clause 4.3.1.1; representing abrasion, blade cut, tear and puncture properties respectively and the mechanical properties pictogram shall be as per Fig. 1 of clause 4.3.1.1.

4.3.5.2. Materials

- 4.3.5.2.1. The gloves shall be made from select heavyweight grain horsehide leather or equivalent that has been treated with a fluoro-chemical water-repellent emulsion for excellent water, oil, and stain-repellent properties. (The soft, breathable qualities of the leather are not affected by this water-repellent treatment.)
- 4.3.5.2.2. The back of the leather cuffs shall possess a heavy-duty high visibility fluorescent-yellow fabric strips and retro-reflective silver strips for greater night-time visibility in accordance with ISO 20471 requirements. Fig 9 demonstrates an illustration of a linesman glove.
- 4.3.5.2.3. The linesman's gloves shall be sewn with a para-aramid synthetic fibre Kevlar® thread for extra seam strength.

4.3.5.3. Size designation

The length of the gauntlet cuff shall range from 80mm to 150mm for sizes 6 to 11 of Table 1.

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Fig.9: Illustration of a linesman’s gloves

4.4. QUALITY MANAGEMENT SYSTEM

- 4.4.1. The supplier shall submit a quality assurance plan (QAP) that will be used to ensure that the design, material, workmanship, tests, service capability, maintenance and documentation of the protective gloves fulfil the requirements stated in the contract documents, standards, specifications and regulations.
- 4.4.2. The Manufacturer’s Declaration of Conformity to applicable standards and copies of quality management certifications shall be submitted with the tender for evaluation.

5.0. TESTS AND INSPECTION

- 5.1. The protective gloves shall be inspected and tested in accordance with the requirements of ISO 2047, BS EN 420, BS EN 388, BS EN 12477, BS EN 407, BS EN 7318, applicable Kenyan standards and all the provisions of this specification. It shall be the responsibility of the supplier to perform or to have performed the tests specified and whatever other tests he normally performs at works.

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5.2. Copies of previous Type Tests Reports issued by a third party testing laboratory that is accredited to ISO/IEC 17025 shall be submitted with the tender for the purpose of technical evaluation. A copy of the accreditation certificate to ISO/IEC 17025 for the same third party testing laboratory used shall also be submitted with the tender document (all in English Language). The type tests shall include:

- a) Material composition
- b) Verification of gloves sizes
- c) Abrasion resistant test
- d) Blade cut resistance test
- e) Tear resistance test
- f) Puncture resistance test

5.3. The protective gloves shall be subject to acceptance tests at the manufacturer's workshop before dispatch. Acceptance tests shall be witnessed by at least two (2) Tender Processing Committee (TPC) members appointed by The Kenya Power and Lighting Company Limited (KPLC). Routine and Sample Test Reports for the protective gloves to be supplied shall be submitted to KPLC for approval before delivery of the goods. The tests to be witnessed shall include;

- a) Material composition
- b) Verification of gloves sizes
- c) Abrasion resistant test
- d) Blade cut resistance test
- e) Tear resistance test
- f) Puncture resistance test

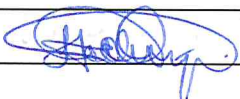

5.4. On receipt of the product, KPLC will perform any of the tests specified in order to verify compliance with this specification. The supplier shall replace without charge to KPLC the protective gloves which upon examination, test or use; fail to meet any of the requirements in the specification.

6.0. MARKING AND PACKING

6.1. MARKINGS

6.1.1. Marking of mechanical gloves shall be in accordance with BS EN 420 and BS EN 388

6.1.2. Marking of welding gloves shall be in accordance with EN 420 and EN 12477:

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- a) Each glove has to be marked with standard number (EN 12477), followed by the letter of the type (A or B).
- b) The smallest packaging has to be marked with the pictogram of gloves for protection against thermal risks and (optional) mechanical risks with the number of this standard.
- c) Each pictogram is followed by the levels of performance according to EN 407 and EN 388

6.2. PACKAGING

6.2.1. The protective gloves shall be packed in a manner so as to protect it from damage during transportation and storage. Instructions for storage and handling shall be included in each package, all in English Language.

6.2.2. The following information shall be printed on a suitable label firmly attached to each packaging:

- a) Purchase order number/tender
- b) Manufacturer's name
- c) Year of manufacture
- d) Protective gloves catalog number
- e) The words, "**PROPERTY OF KPLC**"

7. DOCUMENTATION

7.1 The bidder shall submit its tender complete with technical documents required by Annex A (Guaranteed Technical Particulars) for tender evaluation. The technical documents to be submitted (all in English language) for tender evaluation shall include the following:

- a) Guaranteed Technical Particulars signed by the manufacturer;
- b) Copies of the Manufacturer's catalogues, brochures, drawings and technical data;
- c) Sales records for the last five years and at least four customer reference letters;
- d) Details of manufacturing capacity and the manufacturer's experience;
- e) Copies of required type test reports by a third party testing laboratory accredited to ISO/IEC 17025;
- f) Copy of accreditation certificate to ISO/IEC 17025 for the third party testing laboratory;
- g) Manufacturers letter of authorization, ISO 9001:2008 certificate and other technical documents required in the tender.

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- 7.2 The successful bidder (supplier) shall submit the following documents/details to The Kenya Power & Lighting Company for approval before manufacture:
- a) Guaranteed Technical Particulars signed by the manufacturer;
 - b) Design Drawings with details of protective gloves to be manufactured for KPLC.
 - c) Quality assurance plan (QAP) that will be used to ensure that the design, material; workmanship, tests, service capability, maintenance and documentation will fulfill the requirements stated in the contract documents, standards, specifications and regulations. The QAP shall be based on and include relevant parts to fulfill the requirements of ISO 9001:2008
 - d) Detailed test program to be used during factory testing;
 - e) Marking details and method to be used in marking the protective gloves;
 - f) Manufacturer's undertaking to ensure adequacy of the design, good engineering practice, adherence to the specification and applicable standards and regulations as well as ensuring good workmanship in the manufacture of the protective gloves for The Kenya Power & Lighting Company;
 - g) Packaging details (including packaging materials).
- 7.3 The supplier shall submit recommendations for use, care, storage and routine inspection/testing procedures, all in the English Language, during delivery of the protective gloves to KPLC stores.

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ANNEX A: Guaranteed Technical Particulars (to be filled and signed by the Manufacturer and submitted together with copies of manufacturer's catalogues, brochures, drawings, technical data, sales records, customer reference letters and copies of certificates/test reports for tender evaluation)

Tender No.

Description	Guaranteed Technical Particulars offered	
Name of Manufacturer & Country of manufacture	specify	
Scope: Supplier to ensure adequacy of the design, good workmanship, good engineering practice and adherence to standards, specifications and applicable regulations in the manufacture of the insulators for KPLC	specify	
Compliance to clause 4.2		
1. Mechanical glove		
Standard of manufacture	specify	
Type designation	specify	
Five finger design with slit at the ulnar surface of the palm	specify	
Performance levels	Abrasion resistance	specify
	Blade cut resistance	specify
	Dexterity	specify
	Tear resistance	specify
	Puncture resistance	specify
Material of manufacture	Leather type	specify
	pH value of leather used	specify
	Chromium (IV) content of leather used	specify
	Number of cleaning cycles for the glove	specify
Thickness of leather and lining	specify	
Coating material	specify	
Technology of manufacture	specify	
Strength of seams used	specify	
Size designation	Glove size	specify
	Hand circumference	specify
	Hand length	specify
	Minimum length of glove	specify

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		Palm width	specify	
		Length of cuff	specify	
2	Welding gloves			
	Standard of manufacture		specify	
	Type designation		specify	
	Five finger design with slit at the ulnar surface of the palm		specify	
	Performance levels	Electric Isolation		specify
		Abrasion Resistance		specify
		Cut Resistance		specify
		Tear Resistance		specify
		Puncture Resistance		specify
		Burning Behaviour		specify
		Contact Heat		specify
		Convective Heat		specify
		Metal Splashes		specify
	Material of manufacture	Dexterity		specify
		Leather type		specify
		pH value of leather used		specify
		Chromium (IV) content of leather used		specify
	Number of cleaning cycles for the glove		specify	
	Thickness of leather and lining		specify	
	Coating/lining material		specify	
Technology of manufacture		specify		
Strength of seams used		specify		
Size designation	Glove size		specify	
	Hand circumference		specify	
	Hand length		specify	
	Minimum length of glove		specify	
	Palm width		specify	
	Length of cuff		specify	
3	Drivers glove			
	Standard of manufacture		specify	
	Type designation		specify	
	Five finger design with slit at the ulnar surface of the palm		specify	
	Performance levels	Abrasion resistance		specify
		Blade cut resistance		specify

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	Dexterity	specify	
	Tear resistance	specify	
	Puncture resistance	specify	
	Material of manufacture	Leather type	specify
		pH value of leather used	specify
		Chromium (IV) content of leather used	specify
		Number of cleaning cycles for the glove	specify
	Thickness of leather and lining	specify	
	Coating/lining material	specify	
	Technology of manufacture	specify	
	Strength of seams used	specify	
	Size designation	Glove size	specify
		Hand circumference	specify
		Hand length	specify
		Minimum length of glove	specify
Palm width		specify	
Length of cuff	specify		
4	Cotton work gloves		
	Standard of manufacture	specify	
	Type designation	specify	
	Five finger design with slit at the ulnar surface of the palm	specify	
Performance levels	Abrasion resistance	specify	
	Blade cut resistance	specify	
	Dexterity	specify	
	Tear resistance	specify	
	Puncture resistance	specify	
Material of manufacture	Fabric reference	specify	
	Mass per unit area	specify	
	Knitting type	specify	
	Number of cleaning cycles for the glove	specify	
Thickness of leather and lining	specify		
Coating/lining material	specify		
Technology of manufacture	specify		
Seam thread properties	specify		
Size designation	Glove size	specify	

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		Hand circumference	specify
		Hand length	specify
		Minimum length of glove	specify
		Palm width	specify
		Length of cuff	specify
5	Linesman's gloves		
	Standard of manufacture		specify
	Type designation		specify
	Five finger design with slit at the ulnar surface of the palm		specify
	Performance levels	Abrasion resistance	specify
		Blade cut resistance	specify
		Dexterity	specify
		Tear resistance	specify
		Puncture resistance	specify
	Material of manufacture	Leather type	specify
		pH value of leather used	specify
		Chromium (IV) content of leather used	specify
		Number of cleaning cycles for the glove	specify
	Thickness of leather and lining		specify
	Coating/lining material		specify
	Technology of manufacture		specify
	Strength of seams used		specify
	High visibility material		specify
	Size designation	Glove size	specify
		Hand circumference	specify
		Hand length	specify
		Minimum length of glove	specify
		Palm width	specify
		Length of cuff	specify
7	Quality Management System		
	Quality Assurance Plan		provide
	Copy of ISO 9001:2008 Certificate		provide
	Manufacturer's experience		provide
	Manufacturing Capacity (units per month)		provide
	List of previous customers		provide
	Customer reference letters		provide

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8	Test standards and responsibility of carrying out tests	provide
	Copies of Type Test Reports submitted with tender	provide
	Test reports to be submitted by supplier to KPLC for approval	provide
	Replacement of rejected assembly tools.	specify
9	Marking	specify
	Packing	specify
10	Documents submitted with tender	provide
	Documents to be submitted by supplier to KPLC for approval before manufacture	provide
11	Manufacturer's Guarantee and Warranty	provide
12	List catalogues, brochures, technical data and drawings submitted to support the offer	provide
13	List customer sales records and reference letters submitted to support the offer.	provide
14	List Test Certificates submitted with tender	provide
15	List test reports of the wrenches to be submitted to KPLC for approval before shipment	provide
	Statement of compliance to specification (indicate deviations if any & supporting documents)	provide

.....
Manufacturer's Name, Signature, Stamp and Date

NOTE:

*The **Guaranteed Technical Particulars (GTP)** shall form the basis of technical tender evaluation. Bidders shall ensure that the offered values for the item conform to the values in the test reports and their certificates, catalogue references and/or brochures. Failure to adhere by this requirement shall lead to automatic disqualification at the technical evaluation stage.*

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