BLACK SUMMER BOOT
(MODEL REF. 30-310 , PU / PU SOLE)

TECHNICAL SPECIFICATION

ENISO 20347:2004 O1

1-SUBJECT

This specification covers the technical specifications, control and test methods of Black summer boot – style ref. LE 310 (30-310).
All tests are made in accordance with the Europian Norm ENISO 20344:2004 and the product is complying with the Europian Norm ENISO 20347:2004 and NATO Standards

2- SPECIFICATIONS

A. GENERAL

This boot is designed according to the field conditions. All materials provide comfort and flexibility
Soft and good quality cow leather in black colour
Padded collar for comfort
Unlined to reach maximum breathablity
Hooks system on top part of boot for speed fastening
Hooks and eyelets are resistant against rust.
Supported toe and back heel
Ultra light weight
Sweat absorber, anti-bacterial, anti-static sock insert (inlay sole)
Available fittings are medium and large
Direct injection double density polyurethane sole durable against hydrolysis in very hot and humidity environment
Electrical resistance, Antistatic footwear to minimize electrostatic buid up to avoid the risk of spark ignition
Size range is between 36 – 48 French Sizing / 3 – 13 British Sizing
Standards : NATO and European (ENISO 20347:2004 O1)

B. TECHNICAL SPECIFICATION

LEATHER :

Upper Material :	Full grain, Natural, Cow leather
Colour :	Black
Thickness :	1.8mm (minimum)
Breaking strength :	20 N (minimum)
Tearing strength :	140 N (minimum)
pH :	3,2 (minimum)

QUARTER / CANVAS :

Material :	Nylon 6.6 Cordura by Dupont / Invista
Colour :	Black

Weaving :	Plain, 1100 Denier
Breaking strength :	Warp : 275 kgf (minimum)
	Weft : 230 kgf (minimum)
Tearing strength :	Warp : 35 kgf (minimum)
	Weft : 35 kgf (minimum)
Water Repellency :	4 (minimum)
Colour Fastness :	4 (minimum)

LASTING INSOLE BOARD :

Property :	Anti-static, anti-bacterial, sweat absorber
Material :	Non-woven bonded fibre board
Thickness :	2 mm (minimum)
Cracking angle :	90 degree (minimum)

SUPPORTS :

Toe cap support :	Thermoplastic
Thickness :	1,8 mm (minimum)
Ankle (stiffener) support :	Thermoplastic
Thickness :	1,6 mm (minimum)

ACCESSORIES AND OTHERS :

Eyelets (holes) :	4 pairs per boot Rustproof Brass caoted nickel
Hooks (closed) :	5 pairs per boot Rustproof Brass caoted nickel
Sewing thread:	Polyester or Polyamide Breaking strength : 30N (minimum)
Laces:	Polyester or Polyamide Round shape Breaking strength : 500 N (minimum) Length: According to the boot
Inlay Sole (Footbed) :	Anti-static, sweat absorber, anti-bacterial, removable Material : Non-woven textile coated felt Antistaticness: 0,1 mOhm – 1000 mOhm (between)

SOLE :

Property :	- Direct Injection and Moulded : It provides durability and resistance against sole-upper separation - Double density polyurethane (PU/PU) : Midlayer provides cushining and comfort as well as flexibility. - High performance - Anti-staticness (A) : İt provides to minimize electrostatic build up to avoid the risk of spark ignition. - Energy Absorbing Heel (E) : It provides comfort when jumping walking, running , etc. by absorbing downward force in excess of a body weight. It is to absorb a minimum energy level 20 joules to take the shock our of the heel area - Hydrolysis resistance: It provides durability on sole against very humidity and hot weather conditions and longer self life for products at international storage terms - Oil resistant outsole (FO): The sole will not swell or become brittle and crack when worn in harsh industrial environments - Slip resistant outsole - Heat resistant up to 110 ^{0}C degree
Material :	Polyurethane in double layer (PU/PU) midsole layer (softer) and outsole layer (harder)
Slip resistance :	Co-efficient of friction 0.28 heel – 0.32 flat (minimum)
Flexing resistance :	Cut growth 4 mm after 30.000 cycles (maximum)
Abrasion resistance :	Density > 0,9 : volume loss 150 mm3 (maximum)
Tearing strength :	8 kN/mm (minimum)
Energy absorption (E) :	20 joules (minimum)
Electrical resistance (A) :	100 kΩ (minimum) – 1000 mΩ (maximum)
Upper / outsole bonding:	4 newton/mm (minimum)
Heat resistance :	No melting or crack after contact at 110 ^{0}C for 60 sec.

3 – QUALITY ASSURANCE

All raw materials before production and all finished products after production are being tested in our laboratory which has been accredited by Turkish Standard Institute (TSE) and accredited by SATRA International Notified Body in UK.

It is supported by the implementation of ISO 9001:2000 and membership of SATRA (international laboratory in U.K.) to audit and test the product.
Product is according to NATO standard.
Product is according to European Standards called ENISO 20347:2004 and marked with **CE** label (if required).

CE

P0001	: Manufacturer reference
0312	: SATRA Notified Body reference
EN ISO 20347	: Number of European standard of occupational footwear for professional use
O1	: Type of classification
FO A E	: Additional property code
G550-01	: Product group identification
42 (8)	: Size EUR (UK)
06 / 2011	: Date of manufacture

Each pair of boot has a customer information leaflet, which is put, in inner boxes. This leaflet includes information about product, standard and products care.

4 - LABELLING AND PACKAGING

LABELLING:

CE label is stitched inside tongue and each pair bears this CE marking.
Each inner box bears a label sticker, which shows product name and size of the boot.
Each outer box bears a label sticker, which shows product name, size of the boot and quantity pairs inside box.

PACKAGING:

Each pair of boot is packed separately in tough cardboard box (inner box). Then one set will be packed together.
10 pairs of boots are packed in a ripped cardboard box (outer box). This quantity can be changed according to customer requirement.
Final packaging shall maintain enough protection to prevent any damage of goods under normal shipment and handling conditions.