

## Contents

Introduction .....	3
1. Definitions .....	3
1.1. Definitions of Main Product Categories .....	3
1.1.1. Hand Protection .....	3
1.1.2. Protective Clothing .....	3
1.1.3. Head Protection .....	3
1.1.4. Eye and Face Protection .....	3
1.1.5. Hearing Protection .....	3
1.1.6. Respirators .....	3
1.1.7. Foot Protection .....	3
1.1.8. Fall Arrest Systems .....	4
1.1.9. First Aid Products .....	4
1.2. Definitions of Samples .....	4
1.2.1. Approval/Counter Sample .....	4
1.2.2. Production Sample .....	4
2. Compliance Guidelines .....	4
2.1. Certification .....	4
2.2. Labeling an Marking .....	4
2.3. Testing Laboratories .....	5
3. Hand Protection .....	5
3.1. Fabric and Knitted Gloves .....	5
3.2. Leather Gloves .....	5
3.3. Coated Gloves .....	6
3.4. Chemical Resistant Gloves .....	6
3.5. Disposable gloves .....	6
4. Protective Clothing .....	7
4.1. Disposable products .....	7
4.2. Chemical Resistant Products .....	7
4.3. Heat Resistant Products .....	7
5. Eye and Face Protection .....	7
5.1. Safety Goggles .....	8
5.2. Face Shields .....	8
6. Hearing Protection .....	8

6.1. Ear Plugs .....	8
6.2. Ear Muffs .....	8
7. Respirators .....	9
7.1. Disposable Products .....	9
7.2. Half and Full Face Masks .....	9
7.3. Powered Air Devices .....	9
7.4. Filters .....	10
8. Foot Protection .....	10
8.1. Occupational Shoes .....	10
8.2. Safety Shoes .....	10
9. Fall Arrest Systems .....	10
10. First Aid Products .....	11
11. Packaging and Delivery .....	11
11.1. Packaging Compliance, User Instructions and Approvals .....	11
11.2. Packaging and Delivery Instructions .....	11
12. Quality Control .....	12

## Introduction

The Volume 2 in the Quality Assurance Manual is divided in Sections. Each Lindström Group Product Category has its own section. This Section 2.2 explains the specific instructions for Product Category: Personal Protection Equipment (PPES).

This part relates to what is included and what shall be used as support and reference material during the manufacturing process to ensure that all Lindström standards and expectations are met.

## 1. Definitions

In this section are defined the main terms used in this Quality Assurance Manual Volume 2: Product Category Personal Protection Equipment (PPES).

### 1.1. Definitions of Main Product Categories

The product portfolio of PPES Product Category covers protection of the body from top to toe. The product portfolio is divided in to main sections defined below.

#### 1.1.1. Hand Protection

Section Hand protection covers all various types of gloves produced by various methods and of various materials to protect a person from being injured in his work. The various types of gloves are described more in detail later in this document.

#### 1.1.2. Protective Clothing

Section Protective clothing covers products to protect the body of the person from exposure to e.g. dust, chemicals, and heat. The various sub-sections are described more detailed later in this document.

#### 1.1.3. Head Protection

Section Head Protection covers various types of helmets to protect the head of the person from being injured in his work. The various types of helmets and accessories are described more in detail later in this document.

#### 1.1.4. Eye and Face Protection

Section eye and face protection covers the various types of products to protect a person from being insured in his work. The various sub-sections are described more detailed later in this document.

#### 1.1.5. Hearing Protection

Section Hearing Protection covers various kinds of ear plugs and muffs to protect a person from hearing defects when working in noisy environment. The various sub-sections are described more in detail in this document.

#### 1.1.6. Respirators

Section Respirators covers various kinds of disposable products, facemasks and filters to protect the person in his work of inhaling of harmful substances. The various sub-sections are described more in detail later in this document.

#### 1.1.7. Foot Protection

Section Foot Protection covers occupational and safety shoes manufactured to protect the person from being injured in his work. The various sub-sections are described more detailed later in this document.

### **1.1.8. Fall Arrest Systems**

Section Fall Arrest Systems covers various equipment and products to protect the person from being injured by preventing falling accidents in his work. The various sub-sections are described more detailed later in this document.

### **1.1.9. First Aid Products**

Section First Aid Products covers various equipment and products used at first aid given at the place where the injury or the accident has occurred. The various sub-sections are described more detailed later in this document.

## **1.2. Definitions of Samples**

### **1.2.1. Approval/Counter Sample**

The supplier of the product shall produce an Approval Sample corresponding to the specification and instructions or a physical sample from Lindström. After the Approval sample has been accepted the sample is called the Counter sample. The Counter sample shall be stamped and dated and it is to be used as the Reference sample in Quality Control of future deliveries.

### **1.2.2. Production Sample**

The Production Sample is taken from the running production and it is used to verify that the product is produced as agreed and in accordance with given instructions and the stamped Counter sample.

## **2. Compliance Guidelines**

All products supplied to Lindström Product Category PPES shall conform to all international and national laws and regulations. Whenever a product is aimed to be sold only on a certain geographical area the Supplier is informed about special requirements, if any.

In deliveries to the European Economic Area (EEA) the Supplier shall keep himself aware of the European Union REACH directive and keep himself updated about the list: Restriction of the use of certain hazardous substances (RoHS). The Supplier shall pay special attention to that the regulations in REACH are strictly followed during the entire production process.

### **2.1. Certification**

Certification of products shall be done in the name of Lindström whenever required by EU or other authorities in Lindström market area. The Supplier of the product is responsible for the certification process on behalf of Lindström. The Supplier shall provide samples and valid data required for applying a certificate at any time.

The certification cost shall be borne by Lindström.

Only authentic, original, non-manipulated certificates are accepted.

### **2.2. Labeling an Marking**

All PPES-products must be labeled / marked according to laws and regulations. The labels and markings on the products must contain information which links the product to respective certificates.

#### **Sew-in labels**

All labels must be securely sewn so they remain permanently attached to the product. Labels must be attached so that none of the wording is concealed in the seams.

### **Printed Labels/Markings**

Printing inks or heat transfer materials used in the printed labels and markings shall be of such quality that they endure normal exertions during normal use.

### **Labels/Markings in Mold**

Markings in molds of e.g. shoe soles, helmets and goggles, must correspond with respective certificates and other official documentation.

## **2.3. Testing Laboratories**

For testing and certification of the various product categories the preferred Testing laboratories are recommended.

Intertek: Shoes

CTC: Gloves

SGS: Others

## **3. Hand Protection**

The various types of gloves sold by Lindström shall be manufactured according to given instructions and standards. The products in Hand Protection product category shall comply with what is mentioned on respective certificates for respective product. Lindström has the right to take random samples from the production lot to confirm the compliance. In case the sample does not meet with the requirements of the certificate the manufacturer bears the costs for the testing and the whole production lot is rejected.

All types of gloves shall be measured according to instructions given in Supporting Material.

Supporting Material:

PPES 3.0.1 Hand Measurement

### **3.1. Fabric and Knitted Gloves**

Gloves in product category Fabric and Knitted gloves are standard products of the manufacturer. There are two basic types of fabric and knitted gloves, seamless and cut and sewn. The end use of the gloves determines the gauge on the yarn used in the glove. For certain uses the cotton yarn can be replaced by nylon or polyester. The manufacturer shall present at the quality control documents confirming that the yarn used in the glove corresponds with what is given on the product specification for respective glove.

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 3.1.1 Product Sheet Cotton Glove

### **3.2. Leather Gloves**

Gloves in product category Leather gloves are produced according to Lindström order. The styles are based either on existing models of the manufacturer or on product development together with the manufacturer. A Lindström design is possible. Manufacturing these gloves differs from all other products in this category because they are produced manually. All production phases (sorting of hide, cutting, stitching, finishing, marking and packing) include manual work.

The leather types, both split and grain, used in the gloves are: cow, goat, pig and synthetic. The fabric of the back of the glove is in most cases either cotton, polyester, blend cotton-polyester or nylon. The lining is depending of the type and use of the glove, e.g. winter gloves. The leather type, the material for the back and for the lining of each Lindström product is given on respective product data sheet.

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 3.2.1 Product Sheet Leather Glove

### **3.3. Coated Gloves**

The products in category Coated Gloves are used in material handling of various products. The knitted/sewn basic glove is: cotton, polyester, nylon, Kevlar, blend of cotton and glass fiber depending on the end use and the category of protection given for the glove.

The coating material is e.g. Natural rubber, Latex, Nitrile, PU, Neoprene or PVC. The coated gloves are either half or fully dipped, the exterior finish is smooth or rough. Depending on the end use right raw material for coating and finish is chosen to secure that hands are well protected.

Special attention shall be paid to right materials used in cut resistant gloves, all protecting properties must to 100% comply what is mentioned on respective certificate.

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 3.3.1 Product Sheet Coated Glove

### **3.4. Chemical Resistant Gloves**

The gloves in product category Chemical Resistant Gloves are standard gloves of the manufacturer. The gloves are either supported (cotton, blend or flock lining) or unsupported. The required properties of the gloves depend on the end use, i.e. against which chemicals or what mechanical hazard they protect the user.

The material of the glove/coating of the glove can be: natural rubber, nitrile, poly urethane, neoprene, butyl, etc.

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 3.4.1 Product Sheet Chemical Resistant Glove

### **3.5. Disposable gloves**

The gloves in product category Disposable gloves are standard products of the manufacturer. The raw material used in disposable gloves is latex, nitrile or vinyl. The gloves are either powdered or non-powdered. The quality control of the gloves is based on the online quality control of the manufacturer. The manufacturer is obliged to provide Lindström with laboratory reports of each delivery lot confirming that the gloves comply with the EN norms set for respective glove type. The manufacturer is responsible to declare that the raw materials the ones given on the product specification.

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 3.5.1 Product Sheet Disposable Glove

## **4. Protective Clothing**

The product category Protective Clothing includes standard products of the manufacturer. Various kinds of materials are used in protective clothing depending on the end use of the product.

### **4.1. Disposable products**

The disposable products are made of polypropylene non-woven materials or of polyethylene. This product category includes products like head covers, sleeve covers, overalls, aprons and shoe covers. The products are used in various industries and services.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 4.1.1 Product Disposable Coverall

### **4.2. Chemical Resistant Products**

The Chemical Resistant Products are meant for use in industrial cleaning, work with paints and varnish, the processing chemicals, or environments with hazardous viruses and bacteria. The chemical overalls are classified according to their protection properties against various substances.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 4.2.1 Product Sheet Chemical Coverall

### **4.3. Heat Resistant Products**

To be defined in detail later!

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 4.3.1 Product Sheet

## **5. Eye and Face Protection**

Product category Eye and Face Protection includes various types of products to protect the eyes and face of a person from being exposed to injuries in his work.

## **5.1. Safety Goggles**

Eye protection products are used for protecting the eyes against dust, splashes and mechanical hazards or against exposure to a welding flame or to a laser beam.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 5.1.1 Product Sheet Safety Goggles

## **5.2. Face Shields**

Product category Face shield includes products used for protecting people in environments where injuries and grazes frequently occur. The product category includes different kinds of masks incl. welding masks, and mesh visors.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 5.2.1 Product Sheet Face Mask

## **6. Hearing Protection**

Product Category Hearing Protection includes products used to reduce the risk for hearing impairment. The hearing protection product category includes products from ear plugs to ear muffs.

### **6.1. Ear Plugs**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control. The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 6.1.1 Product Sheet Ear Plug

### **6.2. Ear Muffs**

The product category includes different kinds of ear muffs and protectors.

The details of each product in this category are given on respective product data sheet.



The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 6.2.1 Product Sheet Ear Muff

## **7. Respirators**

Product category Respirators includes products that are used to protect people against solid and liquid aerosols, dust, mist and smoke. The types of respirators vary from simple face masks to respirators with or without filters.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

### **7.1. Disposable Products**

Product category Disposable Products includes more simple products, e.g. disposable respirators against dust.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 7.1.1 Product Sheet 3-ply Hygiene mask

### **7.2. Half and Full Face Masks**

**To be defined in detail later!**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 7.2.1 Product Sheet

### **7.3. Powered Air Devices**

**To be defined in detail later!**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 7.3.1 Product Sheet

## **7.4. Filters**

**To be defined in detail later!**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 7.4.1 Product Sheet

## **8. Foot Protection**

### **8.1. Occupational Shoes**

**To be defined in detail later!**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 8.1.1 Product Sheet

### **8.2. Safety Shoes**

**To be defined in detail later!**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 8.2.1 Product Sheet Helmet

## **9. Fall Arrest Systems**

The product category fall protection includes full body harnesses, body belts and connecting devices. The products in this category provide the protection from a fall on the jobsite by providing the personal fall arrest system while working in heights. The materials and finishing of the harnesses depend on the circumstances at the jobsite.

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

The details of each product in this category are given on respective product data sheet.

Supporting Material:

PPES 9.1.1 Product Sheet

## **10. First Aid Products**

**To be defined in detail later!**

The details of each product in this category are given on respective product data sheet.

The manufacturers in this category are responsible for the compliance of their products with respective standards. All up-dated documentation shall be available prior to placing the order and at Quality Control.

Supporting Material:

PPES 10.1.1 Product Sheet

## **11. Packaging and Delivery**

The finished products shall be clean and neat, free from any soiling. Dirt or any mark shall be removed. On products knitted and stitched all thread ends shall be trimmed and removed. No objects attached or inside the product, such as safety pins, needles or needle parts, loose accessories, etc. are allowed.

### **11.1. Packaging Compliance, User Instructions and Approvals**

The packaging used for PPES products must comply with the laws and regulations in the countries where the products are marketed.

#### **Printed Packages for Sales Lots**

The Supplier shall provide all necessary technical information about the product to be printed on the sales lot packages. Lindström is responsible for the layouts of the sales lot packages. All packages shall be approved by Lindström in writing prior to their manufacturing.

In repeat orders the packages remain unchanged unless Lindström initiates a change. The new version of the package shall be approved in writing by Lindström prior to their manufacturing.

#### **Unprinted Packages for Sales Lots**

All gloves, except disposable gloves, shall be packed in unprinted polybags containing the quantity given on the Purchase order. The polybag shall be sealed.

#### **User Instructions**

The supplier of the product shall provide Lindström with all requested information need for the User Instructions. Lindström is responsible for the contents and translations of the User Instructions. The supplier is responsible for attaching corresponding User Instructions to each sales lot.

### **11.2. Packaging and Delivery Instructions**

The deliveries of sales lots to PPES shall be packed according to given instructions in carton boxes for transportation. The boxes shall be durable and they shall endure normal exertions during transport.

Products must **NOT** be packed in individual polybags unless separately requested on the Purchase Order. The products must be dry before being packed.

The boxes shall be marked according to given instructions.

Supporting Materials:

11.1.1 Delivery Instructions PPES

## **12. Quality Control**

The supplier shall follow the instructions given by Lindström in this Quality Assurance Manual when producing PPE products. The supplier shall have an internal quality assurance system for quality control on line.

Quality control shall be done, without any exception, for all incoming materials and accessories, during production and for the finished products. The details mentioned on the Defect List shall be checked for all product categories above when carrying out the Quality Control.

Lindström or by him nominated representative carries out quality control during production or for finished products according to what is described in Volume 1 of this Manual.

Supporting Material

2.2\_12.1 Defect list Product Category: PPES