Directive Number: 3.6-9

Name: Packaging Requirements for Optical Items

Revision: 2



# Directive 3.6-9 Packaging Requirements for Optical Items

Owner	Bc. Martin Šulc	Approver	Mgr. Tomáš Cejtchaml	Approver	Ing. Vlastimil Cech
Date	18.12.2017	Date	19.12.2017	Date	19.12.2017



Revision: 2



## **Table of Contents**

1	In	ntroduction	. 2
2	Ge	eneral Information and Requirements	. 2
3	Pa	ackaging Concept	. 3
	3.1	Placement of Optical Items	. 4
	3.2	Concept Example	. 5
4	Pa	ackaging Safety and Handling Symbols	. 6

## 1 Introduction

This document does not eliminate or supersede any supplier packaging responsibility. The Supplier is responsible to determine the most economical method of packaging consistent with these requirements, unless otherwise specified. Packaging must ensure delivery of the product without damage, from the place of production to the place of destination, under normal handling and transport conditions.

Meopta-optika s.r.o reserves the right to address packaging insufficiencies and expects full cooperation toward a satisfactory resolution.

Packaging must always comply with established governmental regulations and laws, Act No. 477/2001 Coll.

## 2 General Information and Requirements

This packaging directive describes minimum requirements for the protection of materials delivered by land, sea or air transport.

The Supplier is responsible for any damage resulting from insufficient packaging, incorrect designation. Possible damages will be charged to suppliers.

The packaging must in any case provide protection against the following effects:

- Mechanical damage, shocks
- Any kind of impurity
- Splashing water
- Corrosion
- Climate impacts
- Environmental impacts (industrial waste, waste gas, etc.)
- Loss theft

The packaging must be suitable for the following processes:

- Simple lifting and transport (lifting by forklift or by hand, etc.)
- Difficult transport conditions (bad roads, etc.)

Revision: 2



## 3 Packaging Concept

Unless otherwise specified, the suggested concept is as follows:

The packaging consists of the outer part - the transport packaging, the inner packaging - for the product.

The product is packaged individually or in a group to avoid contact with each other, product damage. The product must be easily removed / inserted.

1 - Outside Box

2 - Inner Filler

3 - Blister

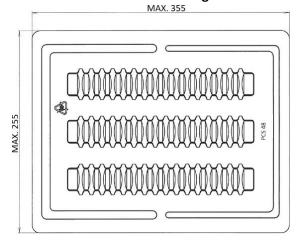
4 - Optics

Picture - the suggested concept

- **1 Outside Box** Usually made of corrugated cardboard or equivalent materials (plastic, wood). It should resist the effects of the environment, shocks, handling etc. The boxes must be secured against opening during transport.
- **2 Inner Filler** Supports shock resistance and matching between box size and inner package size, possible fillers are: Bubble-wrap, Air-bubble, Polystyrene balls, Polyethylene foam, Cardboard, etc.
- **3 Blister** thermoplastic pack, the best case clear blister with invisible lock. Blister must be wrapped in a bag and/or sealed with tape to assure optic cleanliness.

The maximum external dimension of the blister is 355 x 255 mm. The number of pieces is marked on top.





Revision: 2



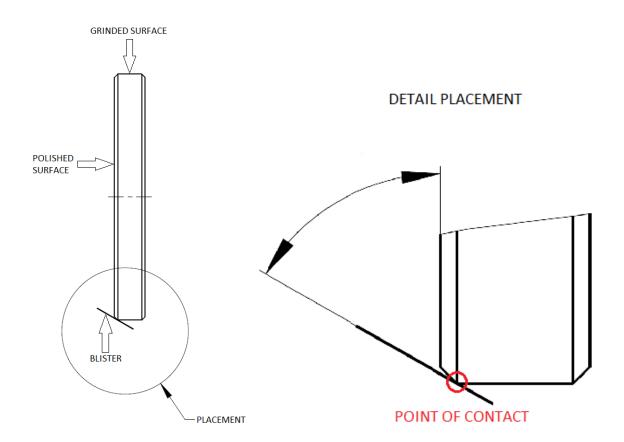
**4 – Optics** – optical items, product, semi product. A handling area must be kept in between the pieces.

#### Note:

Materials such as newspapers, magazines and another dusty materials are not allowed as inner filler.

## 3.1 Placement of Optical Items

Placement of optical items in blister: Point of contact is between protective chamfer and grinded surface. The way of placement applyiesto spherical as well as to plan optics (lens, prisms, bonded optics)





# 3.2 Concept Example

## 1 – Outside Box, 2 – Inner Filler and packed product





3- Blister

## **Unit Blister**





**Quantity Blister** 





Revision: 2









#### 2 - Inner Filler and 1 - Outside Box

Picture: Polystyrene balls and Air-pack (Flo-pak)





#### Note:

For larger quantities suitable palletization

# 4 Packaging Safety and Handling Symbols

The outer packaging must be marked with safety and handling symbols according to the packed items. The packaging must comply with handling and shipping conditions.

Picture: Symbol example and placement



