



# Protection Against Counterfeit Products - An Important Guarantee of Your Safety

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## ABSTRACT

In order to prevent counterfeit products from entering the auto parts market, as well as to identify and withdraw products already placed on the market, various ways and methods are used. This article discusses the features and applied methods of combating counterfeit products using the example of Avtooyina LLC, the only automotive glass plant in Central Asia that produces OEM components for the Assembly Line of UzAuto Motors.

## Keywords:

Automotive Safety Glass, Counterfeit product, Sticker, Code, Special Protective Cover

## I. Introduction

In modern conditions, when the principles of free movement of goods and services are increasingly applied, along with positive aspects, there are also negative phenomena, one of which is an attempt to place counterfeit and counterfeit products on the market.

Counterfeit and falsified products contribute to:

- formation of the shadow sector of the economy;
- discredits the authority of well-known companies;
- undermines consumer confidence in the goods market;
- causes material and moral damage to producers and consumers.

A counterfeit product, or a fake, is a product whose manufacturers violate the intellectual, related and copyright rights of the owners by using identical characteristics and qualities that belong to the original product; or affixing trademarks to popular products of

other companies for the purpose of misleading consumers and unfair competition.

Under the threat of this process are entire industries that specialize in the production of high-demand and consumer products. The buyer is misled or "played" on his well-being. Some consumers, who cannot afford to buy brand name products, simply purchase an inexpensive counterfeit (the main thing is the trademark or trade name).

But the consequences have a negative effect not only on consumers, but also on producers. Manufacturers engaged in counterfeiting provide themselves with better sales of products, while original manufacturers suffer huge losses: not only the volume of income suffers, but also the reputation, as poor quality forms a negative consumer attitude towards the trademark that marks the fake.

If we turn to history, then in the former England and France this struggle was quite effective. Then branding of jewelry was obligatory in order to indicate the origin of the goods and the good quality of the product. The effectiveness of the protection against forgery

of the stigma was that for such an offense the perpetrator was deprived of his life.

In today's world, such methods are certainly inhumane. It is necessary to look for other ways to protect against counterfeit products and make the production of counterfeit products simply unprofitable, because the reasons for fakes are only economic. While this method is applied and modified, efforts should also be directed towards consumers. It is important to let them know that counterfeit products cause not only harm to trademark owners, but also harm to health and life

## II. Analysis

Modern automotive safety glasses, depending on the type and purpose, can be divided into two types: laminated (multilayer, triplex) and tempered.

**Laminated glass:** Glass composed of two or more layers interconnected by one or more interlayers.

**Tempered glass:** Single-layer glass that has undergone a special heat treatment in order to increase its mechanical strength and ensure normalized crushing upon impact.

Laminated glass is used for the windshield, while tempered glass is used for the side and back windows glasses of cars [1].

Original automotive glass is produced under the OEM mark and meets all the standards of the automaker for which it is produced. Currently, Uzbekistan has standards that regulate the quality of safety automotive glass, such as GMW3136, State standards - GOST 111-2014, GOST 32997-2014, GOST 2.

32565-2013 and O'z DSt 35.43:2011 (UNECE Regulation N 43 "Uniform provisions concerning the approval of safety glazing materials and their on vehicles").

Automotive glass is produced from tested materials and in compliance with the technology, and they are also tested in accordance with the requirements of certifying organizations. In the event of quality problems, it immediately eliminates in order to prevent the ingress of low-quality products to the consumer [2]. The original brand is a specific supplier who works with the manufacturer under a contract.

Non-original glass ARG - an attempt to imitate the original OEM. The cost of such glass is lower, so this option seems preferable for car owners. But it is important to understand that in this case the manufacturer does not obey the strict standards and requirements of auto concerns, which means that it can deviate from the technology and use low-quality cheap raw materials.

In order to conduct an analysis of compliance with quality standards, Avtooyuna LLC carried out test purchases of counterfeit products that imitated the original. In the course of the tests carried out in the accredited laboratory of the enterprise, the following discrepancies were identified in terms of the points of the standards:

1. Test for mechanical strength with the manikin impact (Head-form tests). According to GOST 32565-2013, when struck by a manikin, glass breakage is allowed on an intermediate layer 35 mm long (Fig.1.)

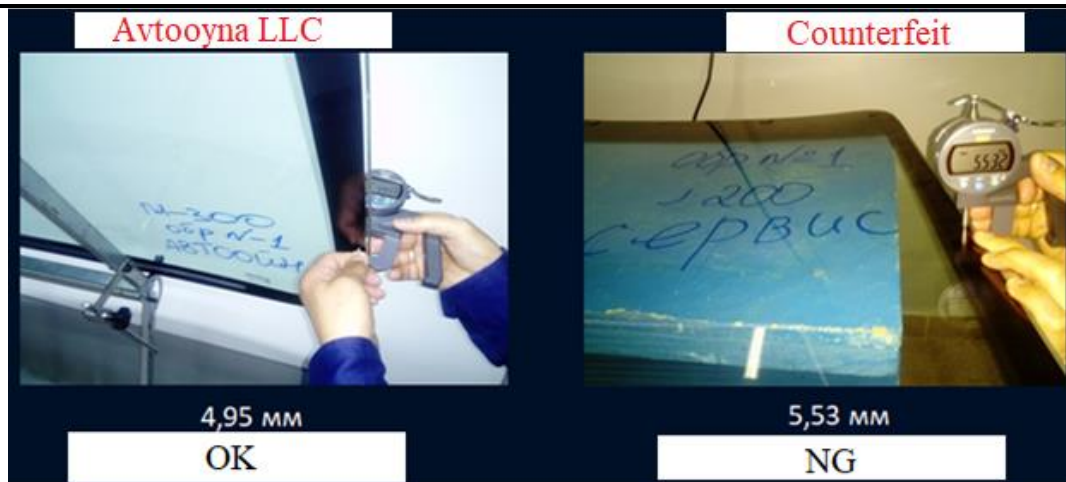


Fig.1. Head-form tests

3. Penetration of glass by hardened-steel ball of 227g Δ38 at a temperature of -20° C. According to GOST 32565-2013, the hardened-steel ball should not pass through the glass for 5 seconds (Fig.2.).



Fig.2. Small ball test.

4. Inconsistency of the appearance of windshields with the specifications and requirements of the car manufacturer UzAuto Motors. According to the specification of the Cobalt vehicle model and the technical requirements of the manufacturer, the windshields of the Cobalt vehicle model do not have a protect sunshade (Fig.3.).

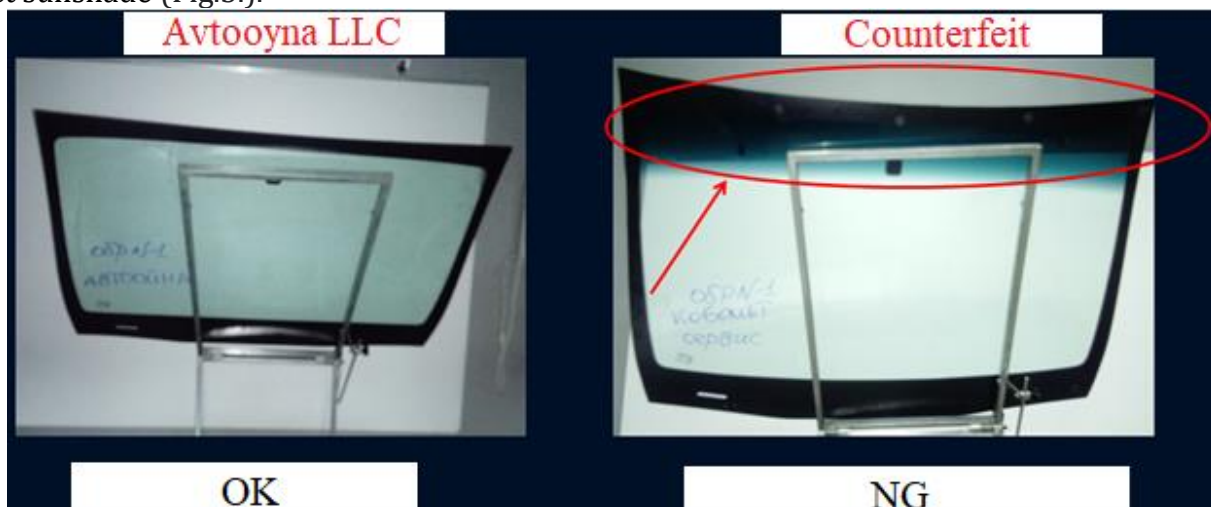


Fig. 3. Car Windshield Sunshade

5. Discrepancy between the thickness of the windshields according to the approved drawings of the manufacturer UzAuto Motors. According to the submitted drawings from the manufacturer UzAuto Motors, the thickness of the windshields should be  $4.8 \pm 0.3$  mm (Fig. 4.)



Fig. 4. Windshield thickness measurement

6. Unreasonable use of signs E22 and 43R (Fig. 5.). To use the E22 mark on the logo, the manufacturer of safety automotive glass must obtain a certificate from the authorized bodies for the approval of the type of safety glass material based on regulation N 43. Avtooyna LLC annually certifies products in accordance with the requirements of regulation N 43 to obtain the E22 mark, and costs annually amount to about UZS 20-25 mln.



Fig. 5. E22 mark on the logo

The above windshield inconsistencies do not provide safety for consumers and car owners.

### III. Results

Anti-counterfeiting technologies include the use of special means of protecting products from counterfeiting, for example, holograms, watermarks, special reliefs and labels.

In connection with the increasing number of counterfeit product sales, Avtooyna LLC decided to launch a fight against counterfeit products and launched the production of glass with special protective

stickers. Each product is assigned a unique verification code (Fig. 6.).

The principle of operation of the system is as follows. A special sticker is glued to the safety glass of the car. The sticker has two important features - the presence of a variable code for each sticker and the presence of a scratch layer, i.e. an erasable security band that hides this variable code (a unique code is generated by a special program by selecting



random numbers). When purchasing protected products in this way, the buyer needs to erase the scratch layer by scraping it off, for example, with a coin, thus gaining access to the secret code. This system is the most reliable for verifying the authenticity of the goods - when the correct code is entered, the buyer receives confirmation. The system does not require special equipment, special skills and knowledge and has a very high degree of reliability, thanks to which any consumer without special knowledge or programs can verify the authenticity of the purchased product in 2-3 steps.



Fig. 6. Special sticker is glued to the inner side of automotive glass.

#### IV. Discussion

Uzbekistan has come a long way - from spontaneous markets to modern trade formats, and a number of important issues related to counterfeiting, as mentioned above, have already been resolved. The next important step was the imposition of responsibility on state bodies, whose activities should seriously strengthen the fight against counterfeiting in Uzbekistan.

In Uzbekistan, the functions to combat the circulation of counterfeit products are assigned to:

- The Department for Combating Economic Crimes under the General Prosecutor's Office carries out the identification of the facts of the formation of the "shadow economy", the suppression of the

activities of underground industries and the production of counterfeit products.

- The State Customs Committee is empowered to combat smuggling and the movement of counterfeit products, including parallel imports.

- The State Tax Committee is responsible for taking measures to prevent the sale of counterfeit, falsified and illegally imported goods in retail outlets.

- Agency for Intellectual Property - ensuring the legal protection of intellectual property, protection of the rights of authors and other right holders.

The introduction of this system by Avtooyna LLC, the first in the auto parts market of Uzbekistan, increased consumer loyalty to this brand and image in general.

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