



Topic: PACKAGE, MARKING OF MEDICAL SUPPLIES. SHIPPING CONTAINERS

The objective: To acquire knowledge about methods of packing of medical supplies, range of packages for medical supplies. To study their classifying, technical requirements, marking, transportation and conditions of storage. To carry out inspection analysis of package, marking of shipping containers.

Basic concepts and terms which should be acquired by students during their training and studying

Package, container, consumer marking, transport marking, information signs, trademarks and service signs, componential signs, dimensional signs, operational signs, precautionary signs, ecological signs, signs of conformity or quality.

Questions for self- training

- 1. Normative documents and legal certificates regulating requirements for package and marking of medical supplies.
- 2. Classifying of package.
- 3. The basic functions of package.
- 4. Range of packages for medical supplies.
- 5. Requirements to polymeric, paper and combined containers.
- 6. The basic functions of marking.
- 7. Consumer marking of items for medical purposes.
- 8. Classifying and range of shipping containers.
- 9. Requirements to shipping containers.
- 10. Storage conditions for shipping containers.

Methodical maintenance of the class

- 1. Tests for control of student knowledge in the topic of the lesson.
- 2. DSTU ISO 780-2001. Package, image labeling for operating with goods.





- 3. GOST 14192-96. Marking of cargoes.
- 4. GOST 12301-2006. Boxes of cardboard, paper and combined materials. General standard specifications.
- 5. GOST 12302-83. Packs of polymeric and combined materials. General standard specifications.
- 6. GOST 12303-80. Packs of cardboard, paper and composite materials. General standard specifications.
- 7. GOST 19126-2007. Medical metal tools. General standard specifications.
- 8. GOST 3-88. Surgical rubber gloves. Standard specifications.
- 9. GOST 396-84. Surgical silk thread unsterile. Standard specifications.
- 10. GOST 5556-81. Medical hygroscopic cotton wool. Standard specifications.
- 11. GOST 1172-93. Bandage gauze. Standard specifications.
- 12. GOST 1179-93. Dressing medical packs. Standard specifications.
- 13. GOST 16977-71. Elastic medical bandage. Standard specifications.
- 14. GOST 24861-91. Single-use injection syringes.
- 15. GOST 25046-81. Single-use injection needles. The basic sizes. Technical requirements. Test methods.
- 16. GOST 25981-83. Surgical needles. General standard specifications.
- 17. GOST ISO 4074-10-93. Rubber condoms. Consumer package and marking.
- 18. GOST 1207-70. Bandages medical sterile. Standard specifications.
- 19. GOST 3302-95. Rubber ice-bags. Standard specifications.
- 20. GOST 3303-94. Hot-water rubber bottles. Standard specifications.
- 21. GOST 3399-76. Rubber medical tubes. Standard specifications.
- 22. GOST 9412-93. Medical gauze. General standard specifications.
- 23. GOST 9078-84. Flat pallets. General standard specifications.





- 24. GOST 2991-85. Nondemountable board boxes for cargoes for weight up to 500 kg. General standard specifications.
- 25. GOST 9142-90. Boxes of corrugated board. General standard specifications.
- 26. GOST 7376-89. Corrugated board. General standard specifications.
- 27. EN 980:2003. Graphic symbols for labeling of medical goods.
- 28. Range of retail containers for various items of medical use, various packaging materials.

Task N 1

Using an example of medical item package describe the basic functions of consumer marking. Specify what elements of marking carry out corresponding functions.

Represent results of your work as in sample table 1 below.

Working technique

For example, package of surgical gloves is given. To make the given task it is necessary to use Annex 5.1.

Table 1.

Characteristics of functions of marking

Characteristics of functions of marking			
Function of	Characteristics	The elements of marking	
marking		bearing this function	
Identifying	batches at all stages of their turnover.	 The name of manufacturer The name of an item Batch № Date of manufacturing: Use by: 	
		6. Bar code	

Task N 2

In a warehouse of a shop "Medical technique" different medical items have arrived. Inspect marking of information signs onto retail containers. Give the description of these signs.

Represent results of your work as in sample table 2 below.





Working technique

Consumer marking is evaluated using Annexes 5.1, 5.2 and 5.3.

For example, package of disposable syringes is offered for inspection.

- **Step 1.** Designate text, figures and information signs in structure of package marking.
- **Step 2.** Determine, what information signs are attributed to trademarks, to symbols of conformity, quality, operational, precautionary, ecological and barcoding.
 - **Step 3.** Represent results of your work as in sample table 2 below.

Table 2.

Results of analysis of consumer marking onto package

Item of	Information	Description of the sign,
medical	sign	its group
use	8	-13 8-1 3 _F
Single-	-N	Trade mark of the enterprise - manufacturer. Concerns
use	CHIRANA :	Lito group of combined trade marks (image + text).
syringe	®	
	~	The mark of social advertising calling to be friendly
	₩₩	with environment. Concerns to ecological information
	<u> </u>	signs.
	-∕>	Designating of paper (package material). Concerns to
	7	ecological information signs.
-	PAP	
	./	Designating of polypropylene - polyethylene (combined package material). Concerns to ecological
	دے	information signs.
	PP-PE	information signs.
		The reuse is forbidden. Concerns to operational
	(\mathcal{X})	information signs.
		_
	OTEDU 5 50	Sterilized with ethylene oxide.
	STERILE EO	Concerns to operational information signs.
	6	Russian sign of conformity used for marking of
		certificated production matching requirements of safety
		for people health and environment.
		The sign of conformity to EC Instructions, it does not
		exclude national signs of conformity to national or
		European standards.





LOT	Code of a batch. Concerns to operational information signs.	
	Shelf-life (YYYY-MM-ДД or YYYY-MM). Concerns to operational information signs.	
LATEX	There is no latex and polyvinyl chloride. Concerns to precautionary information signs.	
	Sign of barcoding. This information sign is intended for automated identification and account of the goods encoded with bars and blanks.	

Task N 3.

Carry out inspection analysis of consumer (or group) container for items of medical use and provide necessary conditions for their storage.

Write down your results in the table 3 using sample below.

Working technique

Inspection analysis of consumer (group) containers is carried out using the corresponding normative documentation.

For example, for analysis a cardboard box is offered.

- **Step 1.** Review normative documentation for cardboard boxes (GOST 12301-2006, 12303-80).
 - Step 2. Identify the offered container using RD.
- **Step 3.** Specify main quality parameters of the offered retail container, being guided by RD, and make the conclusion about its quality.
 - Step 4. Offer conditions for its storage.
 - **Step 5.** Represent results of your work as in sample table 3 below.

Table 3.

Results of inspection analysis of a consumer container for items of medical use <u>cardboard box</u>
(name of the goods)

Name of	Characteristics	
parameter	Requirements of RD Characteristics	
		of goods





Type of retail container	Type 1-1 Cardboard box of with telescopic cover	Type 1-1 Cardboard box with a telescopic
and its decoding		cover
Appearan	Boxes should be manufactured according to requirements of the standard and working drawings of boxes for certain kinds of production. The following requirements are mandatory: - bend lines of a box should be put precisely in all length, regular intervals, without skews; - breaks of material are not allowed at triple 90° bending of box details; - lines of bends and cut should be mutually perpendicular. Deviations from perpendicularity of these lines should not exceed 1,0 mm per 100 mm of length; - mechanic damages, material stratifying, traces of glue, oil are not allowed on a surface of boxes; - edges should be cut without breaks and stratification of cardboard; - coverings of boxes should be put on a case without deformations; - surfaces of boxes pasted with sticking materials should not have wrinkles, folds, unglued places. In corners of boxes folds of material, that don't worsen appearance of boxes are allowed; - bend of finishing material by all perimeter of a case and cover of a box should be uniform, and not more than 25 mm is recommended; - covering put onto surface of a box should be	
	uniform without swellings and curling.	
Quality of marking	Images or text put onto surface of boxes with various methods (seal, stamping, etc.) should be precise, without distortions and blanks.	
Condition s of storage	Empty boxes in piles, boxes and other kinds of packages should be stored in stack not more than 3,0 m high in a covered warehouse protected from atmospheric precipitations and soil moisture, at distance not less than 1 m from heating devices. The distance between a stack and warehouse floor should be not less than 10 cm.	





Conclusion: the retail container (doesn't) correspond(s) to requirements of RD

Task N 4.

From warehouse of an enterprise producing medical goods it is necessary to send items of medical use (IMU) into pharmacy warehouse.

Carry out necessary actions for package of IMU into retail containers and make its proper labeling.

Represent results of your work as in sample table 4 below.

Working technique

For example, it is necessary to pack peaked scalpels into retail container.

Being guided by GOST 19126-2007 or 19126-79, we choose necessary retail container for package of medical cutting tools. Proceeding from requirements of abovementioned GOSTs and EN 980:2003 we check marking of retail container and conclude about its conformity to RD.

Fill table 4 according to the sample below.

Task N 5.

From a warehouse of finished goods at pharmaceutical enterprise it is necessary to send pressurized medical products in glass aerosol cylinders with a polymeric covering packed in plywood boxes for a chemist's warehouse.

Make cargo marking according to rules and requirements of GOST 14192-96 and EN 980:2003. Specify presence of obligatory and optional inscriptions in marking of shipping containers.

Write down results into table 5 using sample below.

Working technique

- **Step 1.** Inspect presence of main and additional inscriptions in marking and correctness of their arrangement, being guided by the scheme described in Annex 5.4.
- **Step 2.** Using GOST 14192-96 and EN 980:2003 choose handling signs necessary for printing onto shipping container and their allocation.
 - Step 3. Write down all necessary transport marking with its decoding in the table 5.





Table 4.

Package and its marking for items of medical use

Item of	Retail container for items of	Marking of package for items of	Operational	The
medical use	medical use	medical use according to GOST	information signs on	conclusion
	modical asc	19126-2007	package of a medical	
		19120 2007	item	conformit
			according to	y of
Scalpel, peaked	Tools should be packed into retail containers: boxes according to GOST 12301, parcels according to GOST 12302, packs according to GOST 12303 and other progressive kinds of containers providing safety of tools, stipulated by standards and specifications for tools of certain kinds. It is allowed to pack the same tools into a group container without consumer one or into skin-package. Retail container with tools should be packed into a group container — box, parcel, pack, tube or other advanced kinds of containers.	thereon it should be specified: - trade mark or (and) name of enterprise - manufacturer; - symbol and (or) name of a tool (if symbol	EN 980:2003 LOT 541747 STERILE STERILE REF	marking





Table 5

Shipping marking

Type	Contents of shipping marking	Arrangement of elements
of marking	(example)	in shipping marking
The basic	The name of consignee	The name of consignee – in
inscriptions	- Chemist's warehouse Ltd;	the center;
	the name of destination	the name of destination – in
	Kharkov, Bezludovskaya str., 15;	the center;
	quantity of freight pieces – 1.	quantity of freight pieces-
		in the center.
Additional	The name of consignor	The name of consignor – in
inscriptions	Novofarm – Biosynthesis Ltd;	center;
	the name of departure point	the name of departure
	- Zhitomir, street. Kirov, 55;	point— in right bottom
	inscriptions of transport	corner;
	organizations.	inscriptions of the transport
	- absent.	organizations – in right top
		corner.
Information	- overall dimensions of a freight	Overall dimensions of a
inscriptions	piece– 17×24×37 cm;	freight piece – in the left
		bottom corner;
	- country-manufacturer of the goods	country - manufacturer of
	– Ukraine;	the goods – in right bottom
	- quantity of items – 25 pieces in a	corner;
	box;	
	- net weight – 5 kg;	net weight- below by
	- gross weight– 6 kg.	center;
		gross weight – below by
		center.





Handling	<u></u>	Signs:
signs	"Avoid domn"	/ ₩ 11
	J − "Avoid damp"	J, — in top left
		corner on each vertical side
	-"Top"	of a box;
	 ♥	
	— "Fragile"	*
		Mark 🔷 – on any
	- "Protect from sunlight"	vertical side seen.
	A	
	- "Open here"	Mark - on place of
	•	opening of package.

Task N 6.

In a chemist's warehouse a batch of shipping containers has arrived. Carry out inspection analysis of arrived goods and provide conditions for their storage.

Represent results of your work as in sample table 6 below.

Working technique

Inspection analysis of shipping container is carried out using normative documentation. For example, flat wooden pallet is offered for the analysis.

- **Step 1.** Review the reference documentation (RD) for pallets (GOST 9078-84).
- **Step 2.** Identify the offered shipping container, using RD, and specify its basic parameters.
- **Step 3.** Check up marking of pallets & its conformity to requirements of RD.
- **Step 4.** Make the conclusion about conformance of the given goods and their storage.
 - **Step 5.** Using results of inspection analysis fill the table 6.

Table 6.

Results of inspection analysis of shipping container flat wooden single-decked double-entry pallet (name of the goods)

Name of	Characteristics	
parameter	according to requirements of RD	of
		inspecte
		d goods





Symbol and its	Pallet P2-1,0 D GOST 9078-84 P – a pallet;	
decoding	2 – double-entry;	
B	1,0 – gross weight in tons;	
	D - material from which the basic parts are made (D -	
	wood);	
	GOST 9078-84 – designation of the standard.	
Appearan	- surface area of pallet bottoms should be not less than 40 %	
ce	of top deck surface;	
	- each board should be integral. Knots on external edges of	
	side boards of bottom deck and in mounting sites of fixing units are not allowed;	
	- blocks should be integral or consist of two parts connected with waterproof glue;	
	 wood fibers of blocks should be allocated along the pallet; core and double core are not allowed in blocks and beams. 	
	- core and double core are not anowed in blocks and beams.	

Continuation of table 6.

Marking	Pallets should have marking of enterprise - manufacturer indicating the following data: trademark of enterprise - manufacturer; date of manufacture; symbol of a pallet; weight of a pallet in kgs; gross weight in tons.	
Storage conditions	Store in dry aired premises, protecting from influence of an atmospheric precipitations and direct solar beams, at temperature 18-25°C and relative humidity from 55% up to 70%. Transportation of pallets in opened transport and their short-term storage in open warehouse platforms is allowed if pallets are covered with denim or other water-proof material.	

Conclusion: Results of inspection have shown, that the goods correspond to requirements of RD (don't correspond by the following parameters: ...).

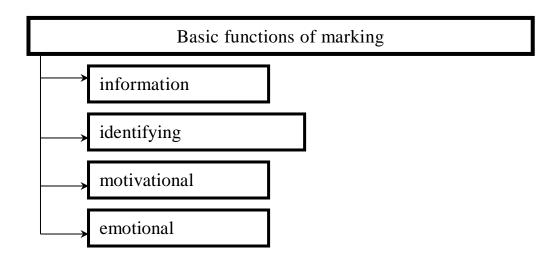




ANNEX 5

5.1. GENERAL INFORMATION

Marking – is text, symbols or images, printed onto package, and/or goods, and/or other auxiliary means, intended for identification of the goods or their certain properties in order to provide final consumer with information about manufacturer, quantitative and qualitative characteristics of the goods.



Information function of marking is the basic component of the commodity information. Most of attention is paid to consumer information, less – to commercial one. Thus the basic information in marking duplicates the same one specified in commodity accompanying documents (CAD). Mismatches in the basic information may arise from falsification of the goods.

Need for such duplication is caused by close connection of *identifying function* of marking with CAD. However, unlike CAD information, marking is useful for <u>all subjects</u> of commercial activity, and for most of consumers it becomes the only available source of the commodity information.

Identifying function of marking is extremely important as it provides traceability of commodity batches at all stages of their turnover.

Emotional and *motivational functions* of marking are interconnected. Colorful and attractive design, explaining texts, use of standard well-known symbols cause positive emotions in a consumer and promote important motivation for decision-making while purchasing the certain goods.

Marking should conform to requirements of standards and other normative documents. Requirements to manufacturing marking are established basically in standards for marking and package, and also by specifications of standards for production.





Structure of marking

Marking usually includes three elements: text, images and symbols or information signs (IS). These components differ by their ratio and degree of the commodity information available, distribution rate and various functions.

Text as a form of written information is the most widespread element of marking. It is characterized by high availability degree of information about goods for all subjects of market relations. Text can carry out all basic functions of marking, especially information and identifying ones.

<u> </u>	 Text – 50-100 %
Elements of marking	 Image – 0-50 %
	 IS – 0-30 %

Part of a text takes 50 - 100 % of overall marking depending on its purpose and carriers.

Image is not always present in marking. As an element of marking images are worldwide understandable, have no language barriers, bear mainly emotional and motivational functions, less information and identifying ones. But sometimes exceptions occur, for example, when marking of a package and leaflets with images contains information about operation or use of goods. Part of images and their degree of availability vary from 0 to 50 % of total commodity information in marking.

Symbols or information signs (IS) are usual for consumer (retail) marking. Features of IS include: brevity of an image, small area occupied on a carrier of marking and high information density, but they are less available to interpret. Sometimes information of IS is understandable only by professionals and requires special skills. Therefore we'll stop on information signs in more details below.

Information signs

Information signs (IS) – are symbols intended for identification of certain or general characteristics of goods. Advantages of IS are in their brevity, expressiveness, presentation and fast recognition.

Brevity is caused by the fact that only few words, letters, digits, figures and other symbols can act as IS.

Expressiveness and **presentation** of IS are caused by their form, color, combination of separate symbols corresponding to certain aesthetic requirements of consumers. Thus some firms aimed at a certain target segment of consumers try to take into account their interests in trademarks.

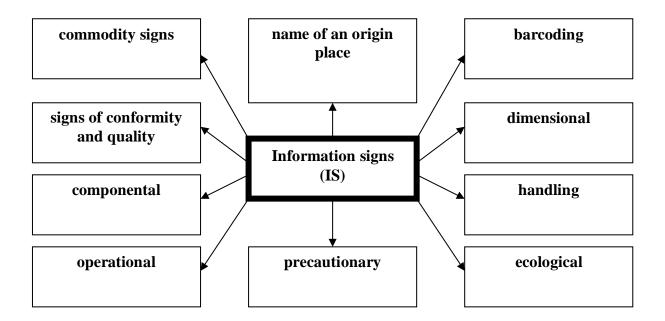
Fast recognition of IS is achieved by application of the standard symbols which images are easily interpreted without special knowledge. For example, international symbols printed on labels and packages of textile items are recognizable world-wide.

IS - is a comprehensive information about the goods. Their classifying in





groups and subgroups depending on certain features is submitted in the figure below.



Classification of information signs

Trademarks and service signs – are designations capable to distinguish the products and services (respectively) of a certain company from similar products and services (in further – goods) of other enterprises or physical persons.

By *appearance* all trademarks are divided into three basic groups:

1. Verbal (only text).

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2. Graphic (only a sign).



3. Combined (a sign + text).



Signs of goods origin place. The name of goods origin place include names of country, region, district, city or other geographical object used for designating of the goods which special properties are fully or mainly determined by environment and/or human factors characteristic for the given geographical region.

Signs of goods origin place include: signs of an origin country, place, district, historical name of geographical object.





Signs of goods origin country are subdivided into international and national ones. In a foreign trade activity it's accepted to apply international signs including one or several letters and digital code. Signs of an origin country may be included into other information signs (for example, signs of conformity) or into accompanying documents (certificates, operational and other documents).

National signs of goods origin country can be applied alongside or instead of international ones. For example, there was national sign «Made in USSR» in the former USSR, and e.g. «Made in Ukraine», «Made in USA» existing in Ukraine and the USA now. National sign can have symbolics with flag image.

Barcode — is a sign intended for automated identification and account of information about the goods coded as bars and digits.

Barcode is rendered onto transport or retail containers of all imported and domestic goods by printing or with the help of a label attached or stuck onto a good. According to requirements of foreign trade transactions presence of barcode on a package of goods is obligatory condition for their export. Absence of a barcode negatively influences production competitiveness. Sometimes non-coded goods cannot be sold, because trade firms with technology of automated commodity turnover often reject to sell or distribute the goods without barcode.

The reason is that system of coding and processing information about the goods with the help of barcodes becomes economically appropriate only if covering not less than 85 % of the goods.

Barcode unlike other information signs bears not only common functions of information and identifying, but also number of additional functions.

Additional functions of a barcode:

- automated identification of the goods with the help of electronic devices;
- automated account and control of stock-in-trade;
- operative management of goods movement: dispatch, transporting and warehousing of the goods (labour productivity during maintenance of goods movement increases by 30 %, sometimes up to 80%);
- increase in rate and culture of service;
- information supply of market researches.

Componental signs – are signs intended for information about food additives or other components, peculiar (or unusual) to the certain goods.

Componental information signs most frequently used on import goods are designated by letter "E" and three- or four-digit code.

Dimensional marks - are signs intended for designating of certain





physical units determining quantitative characteristic of goods.

In Ukraine such dimensional signs were not applied earlier. Physical units were designated by their full name. Since 1980 these names should correspond to the International system of units (SI).

Most frequently for designating of net weight the dimensional sign m= (exactly, equally, identical) is applied, for volume – mark V.

The code of dimensional signs is very simple. The real value of physical unit is added to a symbol of this unit (m, V, etc.) using accepted systems of measurements. More often measurement units of SI are used, rarely – national units of measurement of the country - importer (foot, inch, etc.) are applied.

It's often easy to interpret dimensional signs by numerical value of the dimensional characteristic and by measurement units used. For example, if the designating "450 g" is printed onto marking, it means, that net weight is equal to 450 g.

Dimensional information signs in form of digits or letters are applied, for example, on gloves, clothes, footwear, etc.

Operational signs – are signs intended to inform a consumer about operating rules, ways of care, mounting and adjustment of consumer goods.

Such signs are printed onto labels, name-plates, packages, control tapes or directly onto goods.

Characteristics of operational signs are described in the Annex 5.3.

Precautionary signs – are signs intended to provide safety of goods for a consumer and environment during operation with potentially dangerous goods by warnings or by instruction about actions to prevent danger.

Precautionary signs are subdivided in two kinds:

- warning about danger;
- providing actions for safe use.

Characteristics *of handling signs* are described in GOST 14192-96 and EN 980:2003 (see Annex 5.3).

Ecological signs. One of the most actual problems today is preservation of environment and safety of a person. There are a lot of ways to solve it. One of them is to inform consumers with the help of ecological signs.

Ecological signs are intended to inform about ecological cleanliness of consumer goods or ecologically safe ways of their operation, use or recycling.

Group of eco-signs is subdivided into three subgroups:

- signs informing about ecological cleanliness of goods or safety for environment;
- signs informing about non-polluting ways of manufacturing or recycling of goods or package;
 - signs informing about danger of production for environment.





Characteristics of ecological signs are described in the Annex 5.3.

Signs of conformity or quality. Sign of conformity (in the field of certification)— is a sign protected in accordance with established procedure, used or given in conformity with rules of the certification system, indicating, that necessary confidence is ensured for conformity of the given production, process or service to a certain standard or other normative document.

Depending on application field national and transnational signs of conformity are distinguished.

Characteristics for signs of conformity and quality symbols are described in the Annex 5.3.





5.2. Normative documentation for shipping containers.

GOST 14192-96. Marking of cargoes (abstract)

1. Scope

This standard specifies general requirements for marking of cargoes including those supplied for export and is intended for development of normative documents for specific types of production.

Marking of dangerous cargoes must conform the requirements of GOST 19433.

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3. Contents of the marking

- 3.1. Shipping data must contain handling signs, main, additional and informational inscriptions.
- 3.2. Handling signs are images that indicate the ways cargoes must be handled.
- 3.3. Main inscriptions must contain:

full or conventional name of consignee that is registered in accordance with established procedure;

name of destination point with indication, if needed, of the station or port of transhipment. If the destination point is a railway station (port) full name of the station or port must be indicated and abbreviated name of railroad (steamship line);

number of shipping places in the batch and sequence number of the place within the batch are indicated by a fraction: numerator is a sequence number of the place within the batch and denominator is a number of shipping places in the batch.

Number of shipping places and sequence number of the place must be indicated when transporting such cargoes:

assorted cargoes or freight of all kinds in single-type containers (e.g. different cotton standards in piles):

uniform cargoes in mixed containers;

uniform cargoes when it is inadmissible to mix sorts in the batch; units of equipment;

part-load or small-capacity consignment of cargoes in one carriage.

3.4. Additional inscriptions must contain:

full or conventional name of consignor that is registered in accordance





with established procedure;

name of departure point with indication of railway dispatch station and abbreviated name of dispatch railroad;

notices of transport organizations (contents of the notices and procedure of application are established by requirements of Ministry of railways).

3.5. Informational inscriptions must contain:

gross weight and net weight of a shipping place in kilograms. It is allowed to indicate number of articles instead of net weight and don't put gross weight and net weight or number of articles if they are indicated in the marking characterizing packed production;

overall dimensions of a shipping place in centimetres (length, width and height or diameter and height).

Overall dimensions are not indicated if any of overall dimensions does not exceed 1 m when transporting the cargo in open rolling stock, 1,2 m – in covered vehicle and 0,7 m when transporting by air transport.

3.6. When transporting cargoes in unitized loads main, additional and informational inscriptions must be put on each of them. It is indicated instead of sequence number of the shipping place and number of shipping places in the batch:

numerator – total number of unitized loads in the batch:

denominator - number of shipping places in the load, in brackets sequence number of the load, e.g. $\frac{3}{50}$.

Main, additional and informational inscriptions (except gross weight and net weight) are not applied on the other shipping places that form the unitized load.

Necessity of applying total number of unitized loads in the batch, number of shipping places in the load and sequence number of the unitized load is established in normative documents for specific types of production.

5. Allocation of shipping data & method of its applying

5.3. Main, additional and informational inscriptions are placed:

on boxes – on one of side surfaces. For framed crates that have external planking, possibility of placing the marking must be provided (attachment of planks, closure of clearances between planks and so on). When transporting in open railway rolling stock by part-load or small-capacity consignment of cargoes marked with the sign meaning "Top" shipping data (except name of consignor and departure point) must be applied additionally on the upper side





(cap) of the package;

on barrels and drums – on one of the bottoms. It is allowed to put the marking on the canister;

on sacks – at the top near seam;

on bundles – on one of side faces;

on bales – on cross-cut end. It is allowed to put the marking on the side face;

on other types of containers and cargoes that are not packed in shipping containers – in the most convenient visible places.

When applying the marking immediately on a container it is allowed to place marking on cross-cut end and (or) on a cap if dimensions and design of a container make impossible to place the necessary marking on the side face.

- 5.4. It is allowed to apply marking immediately on an article if articles are not packed.
- 5.5. Handling signs (warning notices) are applied on each shipping place in the left top corner of two neighboring side faces of a container (see appendix 5.4).

For barrels and drums signs are placed onto one of bottoms or canister; for sacks - onto one of side faces.

- 5.5.1. Sign № 9 is applied immediately onto container on two opposite sides. It is allowed to apply sign № 9 onto labels or immediately onto a cargo.
- 5.5.2. Sign № 12 is applied onto neighboring side face and cross-cut end of a package in the place of projection of actual center of gravity of the cargo on these sides.
- 5.6. On packages that are formed without pallets or on four-way pallets marking is applied onto neighboring side face and cross-cut end.

On packages that are formed on two-way pallets marking is applied onto two grabbing sides.





GOST 12303-80. Packs of paperboard, paper and composite materials

(abstract)

General specifications.

This standard applies to packs of paperboard, paper and composite materials on the base of paperboard and paper intended for packaging and storage of industrial production.

1. TYPES AND BASIC DIMENSIONS

1.6. Internal dimensions of packs are determined in technological normative documents for packs for specific types of production on the base of GOST 21140. It is recommended to take the ratio of dimensions of the sides of packs equal to:

type $I - 1$, II	2:1:2
type $I - 2$, $I - 3$, $I - 4$, $III - 2$, V	2:1:4
type III – 1, IV	4:1:2
type VI – 1	1:0,6:0,6
type $VI - 2$, $VI - 5$	3:1:1
type $VI - 3$, $VI - 6$	1,6:1:1,6
type VI – 4	1:1:0,4
type VI – 7	1,2:1:0,5

5. PACKAGE, MARKING, TRANSPORTATION AND STORAGE

5.1. Unfolded packs of one type and dimension that are glued or sewn along the connecting valve are collected into bales and assembled according to the outline.

Mass of the bale must not be more than 20 kg.

- 5.2. Bales of packs must be packed into single-layer wrapping paper with density of 100 -120 g/m² or in two layers of paper with density of 50 -80 g/m² according to GOST 8273 and corded ones according to GOST 17308 or tied with any other banding materials providing stability of binding. Paperboard inserts must be put under the cord in sites of bending on the edges of a bale according to GOST 7933.
- 5.7. Paper label is glued onto each bale (onto place free from shipping data) where the following information is indicated:

name of manufacturer and its trademark

type and dimension of a pack

number of packs in a bale

number of a packer

designation of normative documentation on packs for specific types of production.





- 5.8. Shipping data according to GOST 14192 with marking by handling sign "Keep away from moisture".
 - 5.3. Information signs in labeling of transport and retail containers.

5.3.1. Signs of conformity and quality symbols, some ecological information signs for labeling of medical items

These signs indicate thand safe for use.	Signs of conformity nat the goods which are bought by a consumer are certificated
4	The Ukrainian signs of conformity.
PG	The Russian national signs of conformity.
Œ	The civil signs of conformity authorized by the European Parliament and Commission of the European Economic Community.
∆6 5	Signs indicating that production is safe for use and corresponds to the German norms. This sign is added with an emblem of organization estimating conformity. In Germany products are evaluated by certification center TUV Rheinfand Gruppe, BRD.
	The Finnish association of standards.
≋ DS ≋	The Danish agency of standardization.
Á	Institute of standardization of Great Britain.

Ecological information signs

As consumers are interested in high quality production which conforms to all main requirements of health protection and safety, producers of the advanced countries have to take into account an environmental factor. For today in many countries of the world signs of ecolabeling are given by the authorized organizations which protect rights of consumers.



"Blue angel" is borrowed from an emblem of the United Nations program about environment. A sign "Blue Angel" informs about ecological compatibility of a product and is printed onto package in two colors: green and blue or black on white background. It does not cover foodstuff and medicines, it labels the goods referred to hazardous, but used at observance of restriction conditions or in allowable limits.







A sign indicating conformity to the requirements, directed on preserving of Earth ozonosphere.

	Group of ecolabeling signs of firms-producers which wish to emphasize their contribution in preserving of environment.
T	The sign of social advertising calling to take care about environment.
<u>Δ</u>	Processed plastic (the sign is put directly onto an item). Inside a triangle a digit code or abbreviation of plastic type can be specified: PETE - polyethylene terephthalate HDPE - high density polyethylene PVC - polyvinylchloride LDPE - low density polyethylene PP - polypropylene PS - polystyrene The goods manufactured of recycled raw material (or suitable for processing)
(E)	"Scandinavian Swan" - conformity to the Scandinavian ecological norms
	"Der Grune Punkt" ("Green point") - is used in system of measures for
S	prevention of environmental pollution with human wastes in Germany.
	"Green crane" - the Ukrainian ecological mark.





1.3.2. Graphic symbols for use in labeling of medical devices

Symbol	Used for	Symbol	Used for
2	Do not reuse	\boxtimes	Use by YYYY-MM-DD or YYYY- MM
LOT	Batch code	SN	Serial number
	Date of manufacture	STERILE	Sterile
STERILE E0	Sterilized using ethylene oxide	STERILE R	Sterilized using irradiation
STERILE	Sterilized using steam or dry heat	REF	Catalog number
\triangle	Caution, consult accompanying documents	STERILE A	Sterilized using aseptic processing technique
•••	Manufacturer	EC REP	Authorized representative in the European Community
\sum	Contains sufficient for < n > tests	Ĵ	For IVD Performance Evaluation only
IVD	In vitro diagnostic medical device		Upper limit of temperature
1	Lower limit of temperature	1	Temperature limitation
i	Consult instructions for use	8	Biological risks
CONTROL	Control	CONTROL] —	Negative control





CONTROL +	Positive control		Caution, consult accompanying documents
	Fragile, handle with care	***	Keep away from sunlight
	Protect form heat and radioactive sources		Keep dry
STERMIZE	Do not resterilize	NON STERILE	Non-sterile
	Do not use if package is damaged NOTE Do not use if the product sterilization barrier or its packaging is compromise	##	Patient number
%	Humidity limitation	\$•	Atmospheric pressure limitation
<u> </u>	This way up		Handle with care





5.4. Arranging of marking inscriptions on transport containers

1		6
	3	
	5——	7
11	13	8 ———

Symbols:	
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____ Mandatory inscriptions; Optional inscriptions;

- 1 handling signs;
- 2 precautionary signs;
- 3 quantity of places in a batch and list number inside a batch;
- 4 names of a consignee and destination point;
- 5 name of transshipping point;
- 6 inscriptions of transport organizations;
- 7 name of a consignor;
- 8 name of departure point;
- 9 country manufacturer of goods;
- 10 volume of a freight piece;
- 11 overall dimensions of a freight piece;
- 12 net weight;
- 13 gross weight.