

**COMPANY STANDARD\*****SVEZA DRAWER BIRCH PLYWOOD  
Technical Specifications****STO 52654419-004-2024****Saint Petersburg  
2024**

\* In case of discrepancies, the Russian version of the organization's standard is to be considered as priority. / В случае возникновения разночтений приоритетной является версия стандарта организации на русском языке

## Foreword

Development purposes and objectives, as well as the use of standards of organizations in the Russian Federation are established by Federal Law of December 27, 2002 No. 184-FZ «*On Technical Regulation*» and Federal Law of June 29, 2015, No. 162-FZ «*On Standardization in the Russian Federation*».

Development and presentation rules are specified by GOST R 1.0-2012 «*Standardization in the Russian Federation. Basic provisions*» and GOST R 1.4-2004 «*Standardization in the Russian Federation. Standards of organizations. General*», taking into account GOST R 1.5-2012 «*Standardization in Russian Federation. National standards. Rules of structure, drafting, presentation and indication*».

This standard may only be used for work with the written consent of LLC SVEZA-Les.

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**COMPANY STANDARD**

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**SVEZA DRAWER BIRCH PLYWOOD**  
**Technical Specifications**

**RUS: Фанера SVEZA DRAWER березовая**  
**Технические условия**

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**Date of introduction «10» June 2024**

**1 SCOPE OF APPLICATION**

This company standard (hereinafter referred to as the Standard) applies to SVEZA DRAWER birch plywood (hereinafter SVEZA DRAWER plywood) that is used as a base material to manufacture drawer parts, furniture components or other finished products in the form of drawers and other items, where cutting of plywood with circular saws or end mills as well as faces and edges machining are used.

**2 NORMATIVE REFERENCES**

This Standard includes normative references to the following standards:

GOST 12.4.011-89 Occupational safety standards system. Means of protection. General requirements and classification

GOST 427-75 Measuring metal rules. Basic parameters and dimensions. Specifications

GOST 2140-81 Visible defects of wood. Classification, terms and definitions, methods of measurement

GOST 3749-77 Checking 90° squares. Specifications

GOST 6507-90 Micrometers. Specifications

GOST 7016-2013 Products of wood and wood materials. Roughness parameters

GOST 7502-98 Measuring metal tapes. Specifications

GOST 8925-68 Flat clearance gauges for machine retaining devices. Design and sizes

GOST 9620-94 Laminated glued wood. Sampling and general requirements in testing

GOST 9621-72 Laminated glued wood. Methods for determination of physical properties

GOST 9624-2009 Laminated glued wood. Method for determination of shear strength

GOST 9625-2013 Laminated glued wood. Method for determination of ultimate strength and modulus of elasticity in static bending

GOST 11358-89 Dial-type thickness gauges and dial-type wall thickness gauges graduated in 0.01 and 0.1 mm. Specifications

GOST 15612-2013 Products from wood and wood materials. Methods for determination of roughness parameters

GOST 27678-2014 Wood-based panels and plywood. Perforator method for determination of formaldehyde content

GOST 30255-2014 Furniture, timber and polymers. The method for determination of formaldehyde and other volatile chemicals in the air of climatic chambers

GOST 30427-96 Plywood for general use. Classification of veneer surfaces by appearance

GOST 32155-2013 Wood-based panels and plywood. Determination of formaldehyde release by the gas analysis method

GOST 10636-2018 Wood-shaving and wood-fiber plates. Strength definition method at stretching perpendicularly plate layer

GOST R 50779.12-2021 Statistical methods. Statistical quality control. Item random sampling methods

Note: While using this standard, it is advisable to check the validity of the standards referenced against the National Standards Reference Index.

### 3 CLASSIFICATION AND DIMENSIONS

3.1 In terms of water resistance of glue bond, SVEZA DRAWER plywood is water-resistant plywood of INT/  $\Phi$ K type glued using urea-formaldehyde adhesives and intended for indoor use

Note: SVEZA DRAWER plywood of INT /  $\Phi$ K category belongs to INT formaldehyde emission group.

3.2 3.3 Based on its surface appearance, SVEZA DRAWER plywood is divided into grades: B, BBx, BB, CP, and C (when designated by Latin letters) and I, II, III, IV (when designated by Roman numerals).

A grade designation includes both Latin letters and Roman numerals. Prefix DR is added before the grade designation.

3.3 In terms of surface treatment, SVEZA DRAWER plywood is manufactured with both sides sanded – S2S.

Note: Sanding belts with a grain size of P80 - P100 microns are used for sanding plywood.

#### 3.4 Dimensions

3.4.1 Length and width of SVEZA DRAWER plywood panels must be as shown in Table 1 below.

Table 1

In millimeters	
Plywood panel length (width)	Tolerances
1,220; 1,250	$\pm 3.0$
1,500; 1,525	$\pm 4.0$

**Notes:**

1. SVEZA DRAWER plywood may be manufactured with other dimensions and tolerances by agreement between the manufacturer and the customer.
2. SVEZA DRAWER plywood panel length is measured along the grain direction of the face veneers

3.4.2 Thickness and number of plies of SVEZA DRAWER plywood must be as shown in Table 2.

**Table 2**

Nominal thickness of plywood, mm	Minimum thickness, mm	Maximum thickness, mm	Thickness tolerance, mm	Thickness tolerance within one panel, max mm	Number of plies, min.
3.0	2.7	3.3	$\pm 0.3$	0.2	3
4.0	3.7	4.3			3
5.0	4.7	5.3			4
6.0	5.7	6.3			5
6.5	6.2	6.8			5
8.0	7.7	8.3			7
9.0	8.7	9.3			7
10.0	9.7	10.3			7
12.0	11.7	12.3			9
12.7	12.4	13.0			9
14.9	14.6	15.2			11
15.0	14.7	15.3			11
18.0	17.7	18.3			13
21.0	20.7	21.3			15
24.0	23.7	24.3			17
25.0	24.7	25.3			17

Note: It is allowed to manufacture SVEZA DRAWER plywood of other thicknesses, number of plies, and tolerances by agreement between the manufacturer and the customer.

3.4.3 SVEZA DRAWER plywood panels should be cut at a right angle.

Tolerance for squareness must not exceed 2 mm per 1 m of the panel edge length when controlled according to 6.4.1.

Difference in the diagonal lengths must not exceed 2 mm per 1 m of the panel edge length when controlled according to 6.4.2

3.4.4 Tolerance for straightness of edges must not exceed 2 mm per 1 m of panel length.

3.5 The reference designation for SVEZA DRAWER plywood should include the following information:

- name of the product with the wood species indication;

- type;
- combination of face veneer grades both by Latin letters and Roman numerals;
- emission class;
- surface treatment type;
- dimensions;
- reference to this Standard.

Example of reference designation for SVEZA DRAWER birch plywood, of INT/ $\Phi$ K type, with combination of face veneer grades B/BB (I/II), E1 emission class, sanded on both sides; 1,525 mm long, 1,525 mm wide and 10 mm thick:

*Фанера SVEZA DRAWER березовая / Birch Plywood SVEZA DRAWER,  
INT /  $\Phi$ K, DR B/BB (I/II), E1, S2S / III2, 1525 x 1525 x 10  
СТО 52654419-004-2024*

## 4 TECHNICAL REQUIREMENTS

### 4.1 Characteristics

4.1.1 Outer and inner layers of SVEZA DRAWER plywood are made of birch veneer of different thicknesses.

The minimum thickness of outer plies after sanding should not be less than a half of the initial thickness.

4.1.2 No wood-inherent and manufacturing defects exceeding the limits specified in Appendix A are permitted in outer plies of SVEZA DRAWER plywood. The terms and definitions of wood and manufacturing defects are as specified in GOST 30427 and Appendix B.

4.1.3 Depending on the outer plies quality, SVEZA DRAWER plywood is manufactured with any combination of grades listed in par. 3.2 of this Standard except for C/C grade.

4.2 The formaldehyde content and the formaldehyde release of SVEZA DRAWER plywood into the room air should correspond to the values specified in Table 3.

Table 3

Emission class	Formaldehyde content	Formaldehyde release	
	Perforator method, mg/100 g of oven-dry weight of plywood	Chamber method, mg/m <sup>3</sup> of air	Gas analysis method, mg/m <sup>2</sup> *h
E 0.5	Up to 4.0 inclusive	Up to 0.01 inclusive	Up to 1.3 inclusive
E1	Over 4.0 and up to 8.0 inclusive	Over 0.01 and up to 0.124 inclusive	Over 1.3 and up to 1.5 inclusive or less than 3.5 within 3 days after production

4.3 The physical and mechanical properties of SVEZA DRAWER plywood are given in Table 4.

Table 4

Item	Thickness, mm	Values of physical and mechanical properties
1 Moisture content, % not more than	3.0 – 25.0	10
2 Ultimate shear strength along bondline, MPa, not less than	3.0 – 25.0	1.0
3 Ultimate strength in static bending: - parallel to grain of outer plies, MPa, not less than - perpendicular to grain of outer plies, MPa, not less than	9.0 – 25.0	45 30
4 Modulus of elasticity in static bending: - parallel to grain, MPa, not less than - perpendicular to grain, MPa, not less than	9.0 – 25.0	5,000 3,000
5 Ultimate tensile strength perpendicular to board plane, MPa, not less than	3.0 – 25.0	1.2
<p>Notes:</p> <p>1. SVEZA DRAWER plywood shipped from the manufacturer's warehouse should have the moisture content values specified above.</p> <p>2. INT / ΦK category SVEZA DRAWER plywood is tested after soaking the test pieces in water at <math>(20 \pm 3) ^\circ\text{C}</math> for 24 hours.</p> <p>3. The wood failure percentage is determined visually.</p> <p>4. The test for determining the shear strength along bondline is performed in different bondlines as agreed upon between the manufacturer and the customer.</p>		

4.4 Warping tolerances by shapes for birch plywood SVEZA DRAWER with length 1,500 mm and 1,525 mm with outer layer grade combinations: B, BBx, and BB are shown in Table 5.

Table 5

Warping shape	Nominal thickness of plywood, mm	Distance from the reference surface to the panel's surface, not more than, mm
		For length 1,500 mm; 1,525 mm
P / W	$\leq 6.5$	not taken into account
P	6.5 to 15	12
P	$> 15$	7.5
W	$> 6.5$	15



4.5 SVEZA DRAWER plywood volume is specified in cubic metres. The volume of one panel is calculated without rounding. The volume of a SVEZA DRAWER plywood pack and batch is calculated to an accuracy of  $0.001 \text{ m}^3$ . The area of a SVEZA DRAWER plywood panel is calculated to an accuracy of  $0.01 \text{ m}^2$ , the area of panels in a batch – to an accuracy of  $0.5 \text{ m}^2$ .

4.6 Marking is applied by using an indelible paint onto the edge of each panel of birch plywood

The marking applied automatically shall contain the following information:

- manufacturer (number or name);
- type;
- thickness.
- grade;
- shift and/or sorter number;
- date and/or time of manufacture.

The marking applied manually (stamp) should include the following information:

- manufacturer (number);
- shift.

The manual marking (stamp) is applied at the corner of the longitudinal or transverse edge

It is allowed to apply one stamp on (1-3) panels on SVEZA LASER plywood with thickness of 3 to 9 mm.

Marking is applied in the following colors:

- for plywood of INT/ $\Phi$ K type - in green or black.

By agreement between the manufacturer and the customer, it is allowed:

- not to mark birch plywood panels;
- to add additional information to the mandatory marking.

No ink/traces of marking are allowed on the panel's surface (face veneers).

#### 4.6 Stacking of SVEZA DRAWER plywood

SVEZA DRAWER plywood panels should be stacked in packs of 400, 600 and 900 mm high sorted by grade, size and thickness.

As agreed upon between the manufacturer and the customer, SVEZA DRAWER plywood panels may be stacked in packs of other heights.

SVEZA DRAWER plywood panels in a pack should be stacked so that their grain directions coincide.

SVEZA DRAWER plywood panels in a pack should be stacked so that the higher grades face upward.

4.7 Packaging and marking of ready for shipment SVEZA DRAWER plywood packs

4.7.1 Packs of SVEZA DRAWER plywood should have proper packaging to ensure its integrity and prevent damage during transportation.

The main methods and types of packaging are regulated by SVEZA-Les LLC. As agreed upon between the manufacturer and the customer, there may be used other methods and types of plywood packaging.

4.7.2 The marking to packaged packs of SVEZA DRAWER plywood is applied in the form of labels. The text is written in the Russian and/or English language and the labels are placed parallelly or perpendicularly on two sides of the packaging. The text of both labels contains the same information:

- trademark;
- product name – SVEZA DRAWER birch plywood;
- sizes and thickness of SVEZA DRAWER plywood and thickness tolerances (if required);
- SVEZA DRAWER plywood grade according to Appendix C;
- category of SVEZA DRAWER plywood (INT /  $\Phi$ K);
- surface machining of SVEZA DRAWER plywood;
- panels per pack;
- shift;
- SVEZA DRAWER plywood production date;
- emission class;
- order No. under Special Terms and Conditions (to be applied as agreed upon between the manufacturer and the customer);
- the regulatory technical document based on which SVEZA DRAWER plywood is produced;
- manufacturer name and address;
- certification markings and standard compliance mark;
- pictorial marking for handling of goods: “Keep dry” and “Use no hooks”;
- barcode if a data collection terminal (scanner) is available.

For convenience in warehouse operations additional marking may be applied in the form of a label or using a stencil.

## 5 ACCEPTANCE RULES

5.1 SVEZA DRAWER plywood is accepted in batches.

A batch is a certain number of SVEZA DRAWER plywood panels of the same grade and size.

One document should be issued for a batch, which contains the following information:

- trademark;
- manufacturer name and address;
- designation of SVEZA DRAWER plywood;
- batch size;
- the regulatory technical document based on which SVEZA DRAWER plywood is produced.

5.2 SVEZA DRAWER plywood panels quality and sizes are checked by selective sampling. The selective check involves random sampling of SVEZA DRAWER plywood panels according to GOST 18321 in the number specified in Table 6.

Table 6

Batch size	Controlled value under paragraphs			
	3.4.1; 3.4.2; 3.4.3; 3.4.4		4.1.2	
	Sample size	Acceptance number	Sample size	Acceptance number
Up to 500	8	1	13	1
501 to 1,200	13	1	20	2
1,201 to 3,200	13	1	32	3
3,201 to 10,000	20	2	32	3

5.3 Moisture content, ultimate shear strength along bondline, ultimate strength in static bending parallel and perpendicular to grain of outer plies, and modulus of elasticity in static bending parallel and perpendicular to grain of outer plies should be monitored for each thickness and number of plies of SVEZA DRAWER plywood at least once a month.

5.4 The control of the ultimate tensile strength perpendicular to board plane involves selection of 1 panel out of 1000 panels but at least 1 panel from an order.

5.5 The control of the formaldehyde release involves selection of one panel of SVEZA DRAWER plywood from any size sample.

The formaldehyde release is controlled at least once every 7 days as part of the INT formaldehyde emission group.

5.6 A batch is considered compliant with the requirements of this Standard and is accepted if in the samples:

the number of SVEZA DRAWER plywood panels non-compliant with the requirements in terms of sizes, out of square length, straightness, wood and machining defects is less or equal to the acceptance number specified in Table 5;

no panels of SVEZA DRAWER plywood have any blisters, delamination or bark pockets;

- the values of physical and mechanical properties correspond to the values specified in Table 4;

- the formaldehyde release values correspond to the standard values specified in Table 3.

## 6 CONTROL METHODS

6.1 Sampling is according to GOST 9620, GOST 27678, GOST 32155, GOST 30255, [1] - [2], [6].

6.2 The SVEZA DRAWER plywood length and width are measured to a tolerance of 1 mm at two points parallel to the edges at least 100 mm from the edges using a metal measuring tape in accordance with GOST 7502. The actual panel length (width) is the arithmetic mean of two measurement results.

6.3 The thickness of SVEZA DRAWER plywood is measured at a distance of at least 25 mm from the edges in the middle of each side of a panel.

The actual panel thickness is the arithmetic mean of four measurement results.

The following instruments are used to measure thickness:

- a thickness gauge according to GOST 11358 graduated not more than in 0.1 mm;
- a micrometer according to GOST 6507 graduated not more than in 0.1 mm.

The thickness variation in one panel of SVEZA DRAWER plywood is defined as difference between the maximum and the minimum thickness values after four measurements.

#### 6.4 Out of square length of SVEZA DRAWER plywood panel

6.4.1 The out-of-straightness of SVEZA DRAWER plywood panel is measured in accordance with GOST 30427. It is measured using a try square in accordance with GOST 3749 and determined by measuring the maximum deviation of the panel edges from the try square surface using a metal ruler in accordance with GOST 427 to a tolerance of 1 mm.

6.4.2 It is permitted to determine the out of square length based on the difference of the lengths of the panel diagonals measured using a metal measuring tape graduated in 1 mm in accordance with GOST 7502.

6.5 The deviation from straightness of SVEZA DRAWER plywood panel edges is determined by measuring the maximum gap between the panel edge and the edge of the metal ruler using a gauge in accordance with GOST 8925 to a tolerance of 0.2 mm.

#### 6.6 Warp

6.6.1 The warp of SVEZA DRAWER birch plywood 1,500 mm and 1,525 mm long with B, BBx, BB grade combinations of the outer plies veneer is determined on a horizontal table whose dimensions are not smaller than the length and width of the plywood panel.

First, W or P warp shape of the panel is visually evaluated after placing the panel on the horizontal table.

6.6.1.1 SVEZA DRAWER birch plywood 1,500 mm and 1,525 mm long with B, BBx, BB grade combinations of the outer plies veneer and W warp shape should be pressed tightly to and fixed on the horizontal table at points 1, 2 and 3. The measurement should be taken at point 4 using a measuring metal ruler according to GOST 427 or a measuring metal tape according to GOST 7502 as shown in Figure 1.

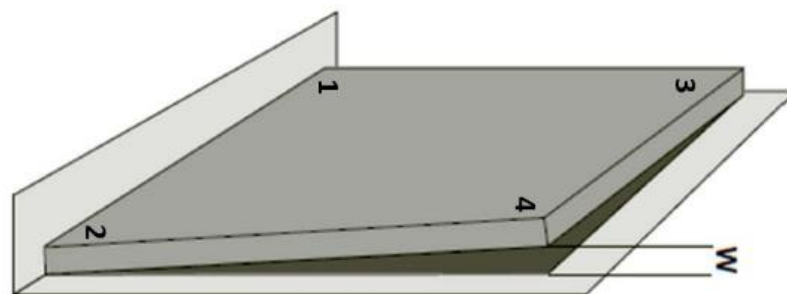


Fig.1

6.6.1.2 SVEZA DRAWER birch plywood 1,500 mm and 1,525 mm long with B, BBx, BB grade combinations of the outer plies veneer and P warp shape should be

fixed on the table at points 1 and 2. The measurement should be taken at point 3 using a measuring metal ruler according to GOST 427 or a measuring metal tape according to GOST 7502 as shown in Figure 2.



Fig.2

6.6.2 For the SVEZA DRAWER birch plywood with the characteristics other than specified in par. 6.6.1 – according to GOST 30427.

6.7 The moisture content is according to GOST 9621, [3].

6.8 The ultimate shear strength along bondline is according to GOST 9624, [4].

6.9 The ultimate strength and modulus of elasticity in static bending are according to GOST 9625, [5].

6.10 The formaldehyde content is according to GOST 27678 (the said method is used as the reference method), formaldehyde release in the environment is according to GOST 30255, GOST 32155, and [1].

6.11 The ultimate tensile strength perpendicular to board plane is according to [6].

6.12 The surface roughness is according to GOST 15612.

6.13 The measurement of wood and machining defects is according to GOST 30427 and GOST 2140.

## 7 TRANSPORTATION AND STORAGE

7.1 Birch plywood should be transported in fully enclosed vehicles in accordance with the rules for carriage of goods by the respective mode of transport.

The transportation conditions should prevent any increase of the SVEZA DRAWER plywood moisture content that may result in changes of geometric, physical, qualitative characteristics of the plywood and emission class.

FK birch plywood of 1,500 mm and 1,525 mm length with combination of external layers grades: B, BBx, BB and warping requirements as specified in item 6.6 should be transported only in a horizontal position and in a special packing preventing warping.

In case of non-compliance with this requirement (vertical transportation in order to increase the amount of plywood to be transported, i.e. putting bundle on edge or without special packing), the manufacturer guarantees warping not more than 15 mm per 1 m of the panels' diagonal length for plywood with the thickness over 6.5 mm. On plywood up to 6.5 mm thick, any degree of warping is acceptable.

7.2 Storage of SVEZA DRAWER plywood

SVEZA DRAWER plywood in an appropriate packaging should be stacked flat on a level surface on pallets or wooden battens indoors at a temperature of minus 40 °C to plus 50 °C and relative humidity of not more than 80%.

## **8 MANUFACTURER'S WARRANTY**

The manufacturer guarantees that SVEZA DRAWER plywood quality complies with requirements of this Standard provided that the transportation and storage conditions are met.

The guaranteed shelf life of SVEZA DRAWER plywood of INT /  $\Phi$ K category is 3 years from the day of receipt by the customer.

When SVEZA DRAWER plywood is intended for further processing or treatment, it is recommended that the manufacturer should be contacted to specify the plywood properties and specifications.

## **9 SAFETY AND ENVIRONMENTAL REQUIREMENTS**

9.1 The content of hazardous chemicals released in the air of residential premises and public buildings when items made of SVEZA DRAWER plywood are used should not exceed the values specified by the requirements of [7], [8].

9.2 The compliance with the requirements of [9] to items made with the use of SVEZA DRAWER plywood is ensured by the manufacturers of those items through application of the appropriate technological solutions and protective coatings.

9.3 SVEZA DRAWER plywood should be produced with the use of the materials and components permitted for use by the national sanitary and epidemiological supervision authorities.

9.4 The personnel engaged in SVEZA DRAWER plywood production should be at least 18 years old and have no medical contraindications. Medical examinations are conducted in accordance with the effective orders of the Ministry of Health of the Russian Federation.

9.5 The personnel engaged in SVEZA DRAWER plywood production should be provided with personal protective equipment according to the applicable regulations in compliance with GOST 12.4.011.

9.6 Specific activity of Cesium 137 in SVEZA DRAWER plywood should not exceed the hygiene standards specified by the requirements of [10].

9.7 The standard SVEZA DRAWER plywood does not contain any raw materials, materials and components classified as hazardous waste.

9.8 SVEZA DRAWER plywood usually has a long service life and there are several disposal methods used. The disposal method for SVEZA DRAWER plywood should be selected taking into account the disposal requirements established by the legislation of different countries.

**APPENDIX A**  
(mandatory)

**Limits for wood and machining defects of outer plies of SVEZA DRAWER plywood**

The limits for wood and machining defects of outer plies of SVEZA DRAWER plywood are specified in Table A.1.

**T a b l e A.1**

WOOD AND MACHINING DEFECTS	B (I)	BBx (II)	BB (II)	CP (III)	C (IV)
1. Pin knots	permitted				
2. Sound intergrown knots, light and dark	permitted up to 15 mm in diameter with a check of up to 0.5 mm in the maximum num- ber of 5 per m <sup>2</sup>	permitted up to 25 mm in diameter with a check of up to 1 mm in the maximum number of 10 per m <sup>2</sup>		permitted with a check of up to 1.5 mm wide	permitted
3. Partially intergrown knots	permitted within the limits specified in par. 4 of this Appendix, up to 6 mm in diameter in the maximum number of 3 per m <sup>2</sup>	permitted within the limits for intergrown knots up to 15 mm in diameter in the maximum number of 10 per m <sup>2</sup>			permitted up to 40 mm in diameter without quantity restrictions
4. Non-adhering knots, fall- ing out knots, knot holes (without bark inclusion)	permitted within the limits for intergrown knots up to 6 mm in diameter in the maximum num- ber of 3 per m <sup>2</sup>		permitted within the limits for intergrown knots up to 6 mm in diameter in the maxi- mum number of 6 per m <sup>2</sup>	permitted up to 6 mm in diameter without quantity restrictions	permitted up to 40 mm in diameter without quantity restrictions (permitted bark inclu- sion at knots up to 5 mm wide)

*Appendix A, continued*

Appendix 12, continued

WOOD AND MACHINING DEFECTS	B (I)	BBx (II)	BB (II)	CP (III)	C (IV)
5. Small checks	permitted up to 200 mm long in the maximum number of 5 per metre of the panel width	permitted up to 300 mm long in the maximum number of 5 per metre of the panel width		permitted at the edges and in the middle	
6. Large checks, open joint of jointed veneer	not permitted	permitted of a length of up to 200 mm, width of up to 2 mm in the maximum number of 3 per metre of the panel width	permitted of a length of up to 250 mm, width of up to 2 mm in the maximum number of 3 per metre of the panel width	permitted of a length of up to 600 mm, width of up to 2 mm in the maximum number of 2 per metre of the panel width + permitted of a length of up to 600 mm, width of up to 5 mm provided that they are repaired with a filler	permitted of a length of up to 800 mm, width of up to 10 mm, without quantity restrictions
7. Irregularities in wood structure (sloping grain, curly grain, swirl, small knots from dormant buds)	permitted				
8. Defects of wood structure (intergrown inbark, light and dark)	only light inbark is permitted, dark inbark is permitted within the size range and number limits for non-adhering knots	light inbark is permitted, dark inbark is permitted within the size range for non-adhering knots			
9. Defects of wood structure (open inbark)	permitted in the total number within the limits for non-adhering knots				
10. Sound discoloration (false heartwood)	not permitted	permitted up to 25% of the panel surface		permitted	



*Appendix A, continued*

Appendix 12, continued

WOOD AND MACHINING DEFECTS	B (I)	BBx (II)	BB (II)	CP (III)	C (IV)
11. Sound discoloration (spots, streaks, streak marks)	permitted light ones not more than 15 % of the panel surface area	Permitted of a length of up to 250 mm and width of up to 10 mm in the maximum number of 10 per m <sup>2</sup>	permitted		
12. Sound discoloration (group streaks)	permitted light ones not more than 15 % of the panel surface area	permitted of a size of 60x40 mm in the maximum number of 1 per m <sup>2</sup>	permitted		
13. Discoloration due to oxidation; sapwood discoloration caused by wood-staining fungi (blue stain, sapwood color stains), discoloration during storage	permitted up to 30 % of the panel surface	permitted within the limits including par. 10 of this Appendix not more than 50 % of the panel surface area	permitted		
14. Biological defects (wormhole)	permitted in the total number within the limits for non-adhering knots				
15. Discolouration with partial wood damage	not permitted				
16. Repairing of knots and holes with wood plugs before pressing	not permitted		permitted using only oval shaped plugs in the maximum number of 8 per m <sup>2</sup> , the wood colour and grain direction should correspond to the wood colour and grain direction of the outer ply	permitted using only oval shaped plugs with a gap of 1 mm on one side or 0.5 mm on both sides	permitted using only oval shaped plugs

*Appendix A, continued*

WOOD AND MACHINING DEFECTS	B (I)	BBx (II)	BB (II)	CP (III)	C (IV)
17. Double plug	not permitted		permitted using only oval shaped plugs in the maximum number of 1 per m <sup>2</sup>	permitted using only oval shaped plugs	
18. Repairing of large checks with veneer plugs	not permitted				
19. Bulges due to overlapping inner plies (marks indicating plies overlap)	not permitted	permitted of a width of up to 3 mm in the maximum number of 3 per panel		permitted of a width of up to 5 mm in the maximum number of 5 per panel	permitted
20. Overlap	not permitted	permitted of a length of up to 100 mm, width of up to 2 mm in the maximum number of 1 per metre of the panel width		permitted of a length of up to 300 mm, width of up to 2 mm in the maximum number of 2 per metre of the panel width	permitted
21. Marks left by tools and equipment (marks left by battens, stripes)	not permitted	permitted up to 10 % of the panel surface		permitted	
22. Glue penetration	not permitted	permitted up to 2 % of the panel surface		permitted up to 5 % of the panel surface	permitted
23. Marks left by tools and equipment, pinholes, kerfs	permitted in the total number within the limits for non-adhering knots				
24. Scratches, ridges, bumps, dents, crests	not permitted			permitted up to 0.5 mm high (deep), up to 120 mm long, up to 10 mm wide	permitted

*Appendix A, end*

WOOD AND MACHINING DEFECTS	B (I)	BBx (II)	BB (II)	CP (III)	C (IV)
25. Warp	in accordance with par. 6.6.1			not considered in plywood under 6.5 mm thick, permitted maximum 15 mm per 1 m of the length of the diagonal of a plywood panel over 6.5 mm thick	
26. Glue thread	not permitted			permitted	
27. Blisters, delamination (incl. in bending), bark pocket	not permitted				
28. Sander skips (non- uniform sanding)	not permitted				permitted up to 50 % of the panel surface
29. Sanding through	not permitted			permitted up to 1% of the panel surface	permitted
30. Metal inclusions	not permitted			permitted non-ferrous metal staples	
31. Edge defects after trimming, missing veneer	not permitted	permitted of a width of up to 2 mm			permitted of a width of up to 10 mm
32. Coarse peeling	not permitted	permitted up to 5 % of the panel surface		permitted up to 15 % of the panel surface	permitted
33. Waviness (for sanded plywood), fuzzy grain, rip- ple	not permitted			permitted	
34. Surface roughness	roughness R <sub>m</sub> is according to GOST 7016, μm, not more than 100				
35. Pocket (without bark inclusion)	not permitted	permitted in the total number within the limits specified in par. 12 of this Appendix		permitted	
36. Glued in pieces of ve- neer	not permitted			permitted of a length of up to 150 mm, width of up to 30 mm in the maximum number of 1 per panel	permitted
37. Gradient spots	not permitted for plywood with at least one side of these grades			permitted	

38. Weak edge	not permitted for plywood with at least one side of these grades	permitted
39. Burnt edge	not permitted for plywood with at least one side of these grades	permitted

Note: No defects not specified in Appendix A are permitted.

## APPENDIX B (mandatory)

### Terms and definitions of machining defects of outer plies of SVEZA DRAWER plywood

The terms and definitions of machining defects of outer plies of SVEZA DRAWER plywood are specified in Table B.1.

Table B.1

Description of machining defects	Definition
Glued in pieces of veneer	Pieces of veneer glued (pressed) in plywood surface
Coarse peeling	Plywood surface has closely located shallow depressions resulting from local wood removal during peeling
Pocket	Cavity inside wood or between growth rings that is filled with gums
Gradient spots (color variations in form of a screen)	Color variations in form of a screen on the plywood surface, either a dark one on a light background or light on a dark background.
Weak edge	A defect in form of an edge area with protruding/torn-out wood fiber bundles characterized by decreased density
Burnt edge	A surface area darkened by partial charring as a reaction to high temperature arising by the increased friction of cutting tools on wood

**APPENDIX C**  
(mandatory)

**Designation of SVEZA DRAWER plywood grades**

The designation of SVEZA DRAWER plywood grades is given in Table C.1

**T a b l e C.1**

Latin letters	Roman numerals	Text on the label in the “Grade” field
B/B	I/I	DR B/B (I/I)
B/BB	I/II	DR B/BB (I/II)
B/BBx	I/II	DR B/BBx (I/II)
B/CP	I/III	DR B/CP (I/III)
B/C	I/IV	DR B/C (I/IV)
BB/BB	II/II	DR BB/BB (II/II)
BB/BBx	II/II	DR BB/BBx (II/II)
BBx/BBx	II/II	DR BBx/BBx (II/II)
BB/CP	II/III	DR BB/CP (II/III)
BBx/CP	II/III	DR BBx/CP (II/III)
BB/C	II/IV	DR BB/C (II/IV)
BBx/C	II/IV	DR BBx/C (II/IV)
CP/CP	III/III	DR CP/CP (III/III)
CP/C	III/IV	DR CP/C (III/IV)

## Bibliography

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| [1] DIN EN ISO 12460-3   | Wood-based panels – Determination of formaldehyde release – Part 3. Gas analysis method  |
| [2] EN 326-1-1994  | Wood-based panels – Sampling, cutting and inspection – Part 1: Sampling and cutting of test pieces and expression of test results  |
| [3] EN 322:1993  | Wood-based panels – Determination of moisture content  |
| [4] EN 314-1:2004  | Plywood – Bonding quality – Part 1: Test methods   |
| [5] EN 310:1993  | Wood-based panels – Determination of modulus of elasticity in bending and of bending strength  |
| [6] DIN EN 319:1993  | Particleboards and fibreboards. Determination of tensile strength perpendicular to the plane of the board  |
| [7] GN (hygienic standards) 2.1.6.3492-17                      | Maximum allowable concentrations (MAC) of pollutants in the atmospheric air of urban and rural settlements   |
| [8] GN (hygienic standards) 2.1.6.2309-07                      | Safe reference levels of impact (SRLI) of pollutants in the atmospheric air of populated areas. Hygienic standards   |
| [9] TR CU 025/2012   | Technical Regulations of the Customs Union “On Safety of Furniture Products”   |
| [10]   | Uniform sanitary, epidemiological and hygienic requirements to the goods subject to sanitary and epidemiological supervision (control) approved by Resolution of the Customs Union Commission No. 299 dated May 28, 2010 |
| [11] DIN EN 13986<br>(German version of EN 13986-2004+A1-2015) | Wood-based panels for use in construction.<br>Characteristics, evaluation of conformity and marking  |

UDC (Universal Decimal Classification) 674-415:006.354 ICS (International Classification for Standards) 79.060.10  
OKPD (Russian Classification of Products by Economic Activities) 2 16.21.12.119

Keywords: company standard, SVEZA DRAWER birch plywood, sizes, technical requirements, packaging, marking, inspection methods, transportation, storage, warranty.

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Standard developer company  
SVEZA-Les LLC