LIMITED LIABILITY COMPANY SVEZA-Les

COMPANY STANDARD

SVEZA OVERLAY BIRCH PLYWOOD
Technical specifications

STO 52654419-016-2020

Saint Petersburg
2020

Preface

The development goals and objectives as well as usage of company standards in the Russian Federation are defined by Federal Law No. 184-FZ “On Technical Regulation” dated December 27, 2002 and Federal Law No. 162-FZ “On Standardisation in the Russian Federation” dated June 29, 2015.

The development and presentation rules are established by GOST R 1.0-2012 “Standardisation in the Russian Federation. Basic provisions” and GOST R 1.4-2004 “Standardisation in the Russian Federation. Standards of organisations. General provisions” taking into account GOST R 1.5-2012 “Standardisation in the Russian Federation. National standards. Rules of structure, drafting, presentation and indication”.

Table of contents

1 SCOPE 1
2 NORMATIVE REFERENCES 1
3 CLASSIFICATION AND SIZES 2
4 TECHNICAL REQUIREMENTS 4
5 ACCEPTANCE RULES 8
6 INSPECTION METHODS 9
7 TRANSPORTATION AND STORAGE 10
8 MANUFACTURER'S WARRANTY 10
9 SAFETY REQUIREMENTS AND ENVIRONMENTAL PROTECTION 11
APPENDIX A 12
APPENDIX B 18
APPENDIX C 19
APPENDIX D 21
APPENDIX E 22
APPENDIX F 23
Bibliography 24

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Effective date 8 December, 2020

1 SCOPE

This company standard (hereinafter referred to as the Standard) applies to SVEZA OVERLAY birch plywood (hereinafter referred to as SVEZA OVERLAY plywood) that is used as the core to be faced with decorative laminates and for other interior applications.

SVEZA OVERLAY plywood may be used as general purpose plywood.

2 NORMATIVE REFERENCES

This Standard includes normative references to the following standards:

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

GOST 427 Measuring metal rules. Specifications

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

GOST 3749 Checking 90° squares. Specifications

GOST 6507 Micrometers. Technical specifications

GOST 7016 Products of wood and wood materials. Roughness parameters

GOST 7502 Measuring metal tapes. Technical specifications

GOST 8925 Flat clearance gauges for machine retaining devices. Design

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

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

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

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

GOST 11358 Dial-type thickness gauges and dial-type wall thickness gauges graduated in 0,01 and 0,1 mm. Specifications

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

GOST 18321 Statistical quality control. Item random sampling methods

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

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

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

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

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

N o t e: when using this Standard it is advisable to check the validity of the reference standards in the “National Standards” information index published annually.

3 CLASSIFICATION AND SIZES

3.1 In terms of water resistance of adhesive bonding and conditions of use, SVEZA OVERLAY plywood is an exterior (EXT) type plywood characterised by an increased adhesive bonding resistance to water, bonded with phenol-formaldehyde glues and intended for interior and exterior use.

Note: SVEZA OVERLAY plywood of EXT category belongs to the EXT formaldehyde emission group.

3.2 Depending on the requirements to inner plies, there are two types of SVEZA OVERLAY plywood produced: SVEZA OVERLAY Standard (hereinafter referred to as OVST) and SVEZA OVERLAY Premium (hereinafter referred to as OVPR).

3.3 Based on its surface appearance, SVEZA OVST plywood is divided into grades depending on the grades combination of the outer plies: B, S, BB, CP, C (when Latin letters are used) and I, II, III, IV (when Roman numerals are used).

Based on its surface appearance, SVEZA OVPR plywood is divided into grades depending on the grades combination of the outer plies: B, S, BB, CP (when Latin letters are used) and I, II, III (when Roman numerals are used).

A grade designation includes both, Latin letters and Roman numerals. OVST / OVPR is added before the grade designation.

3.4 In terms of surface machining SVEZA OVERLAY plywood is S2S, two sides sanded plywood.

3.5 SVEZA OVPR plywood lay-up diagram is presented in Appendix E.

3.6 Sizes

3.6.1 The length and width of SVEZA OVERLAY plywood sheets should correspond to the values specified in Table 1.

T a b l e 1

In millimeters

Plywood sheet length (width)	Maximum deviation	
	OVST	OVPR
1,220, 1,250	±3.0	+1.0/-2.0
1,500, 1,525	±4.0	
2,440, 2,500	±4.0	
3,000, 3,050	±5.0	±2.0

N o t e s:
1. SVEZA OVERLAY plywood may be produced in other sizes and with other maximum deviations as agreed upon between the manufacturer and the customer.
2. The SVEZA OVERLAY plywood sheet length is measured parallel to grain of outer plies.

3.6.2 The SVEZA OVERLAY plywood thickness and number of plies should correspond to the values specified in Table 2.

T a b l e 2

Nominal plywood thickness, mm	Maximum deviation, mm	Thickness variation, not more than, mm	Number of plies, not less than
6.0	±0.2	0.2	5
6.5			5
8.0			7
9.0			7
10.0			7
12.0			9
12.7			9
14.9	±0.3		11
15.0			11
18.0	±0.5		13
21.0			15
24.0			17
27.0			19
30.0			21

N o t e s
1. SVEZA OVERLAY plywood may be produced with other thickness, number of plies and maximum deviations as agreed upon between the manufacturer and the customer.
2. For thicknesses not specified in the table, apply the maximum deviations specified in Table 2 for the closest lower thickness value
3. The plywood thickness at each measurement point should not differ from the nominal value by more than the maximum deviation values specified in Table 2

3.6.3 SVEZA OVERLAY plywood sheets should be cut at a right angle.

The out of square length should not exceed 2 mm per 1 m of the sheet edge length when controlled according to par. 6.4.1.

The difference in the lengths of the sheet diagonals should not exceed 2 mm per 1 m of the sheet edge length when controlled according to par. 6.4.2.

3.6.4 The deviation from straightness of the edges should not exceed 2 mm per 1 m of the sheet length.

3.7 The SVEZA OVERLAY plywood designation should include the following:

- name of the product with the wood species stated;
- category;
- type and grades combination of the outer plies veneer specified using Latin letters and Roman numerals;
- emission class;
- surface finish type;
- sizes;
- identifier of this Standard.

Example of designation for SVEZA OVERLAY birch plywood, EXT / ФСФ category, Premium type, BB/CP (II/III) grades combination of the outer plies veneer, E1 emission class, two sides sanded, 1,250 mm long, 2,500 mm wide and 10 mm thick:

Фанера SVEZA OVERLAY березовая / SVEZA OVERLAY birch plywood,
EXT / ФСФ, OVPR BB/CP (II/III), E1, S2S / Ш2, 1,250 x 2,500 x 10
STO 52654419-016-2020

4 TECHNICAL REQUIREMENTS

4.1 Characteristics

4.1.1 SVEZA OVERLAY plywood outer and inner plies are birch veneer.

The thickness of the veneer used for outer and inner plies of SVEZA OVERLAY plywood should not exceed 2.0 mm.

The minimum thickness of outer plies after sanding should be at least half of their initial thickness.

4.1.2 No wood and machining defects that exceed the limits specified in Appendix A are permitted in outer plies of SVEZA OVERLAY plywood. Terms and definitions of wood and machining defects are according to GOST 30427 and Appendix B.

4.1.3 No wood and machining defects that exceed the limits specified in Appendix C are permitted in inner plies of SVEZA OVERLAY plywood.

4.1.4 Voids on edges of SVEZA OVPR plywood resulting from defects (checks, knots) in the inner plies are permitted within the limits for the defects specified in Appendix C.

Voids on edges of SVEZA OVPR plywood resulting from the defects not specified in Appendix C are permitted if their depth in one ply is not more than 5 mm.

4.1.5 Depending on the outer plies quality, SVEZA OVERLAY plywood is produced in the following combinations of grades:

- SVEZA OVPR plywood: B/B, B/BB, B/CP, S/BB, BB/BB, BB/CP and CP/CP grades;
- SVEZA OVST plywood: B/BB, B/CP, S/BB, BB/BB, BB/CP, CP/CP, CP/C grades.

4.2 The formaldehyde content in and the formaldehyde release from SVEZA OVERLAY plywood in the indoor air should correspond to the values specified in Table 3.

T a b l e 3

Emission class	Formaldehyde content	Formaldehyde release		
	Perforator method, mg/100 g of oven-dry weight of SVEZA OVERLAY plywood	Small-scale chamber method, mg/m^3 of air	Small-scale chamber method, ASTM D6007, ppm	Gas analysis method, mg/m^2*h
E 0.5	Up to and including 4.0	Up to and including 0.01	Up to 0.04*	Up to and including 1.3
E1	Over 4.0 up to and including 8.0	Over 0.01 up to and including 0.124	Up to 0.04*	Over 1.3 and up to and including 1.5 or less than 3.5 within 3 days after production
N o t e: * - to be confirmed by providing a CARB Executive Order				

4.3 The physical and mechanical properties of SVEZA OVERLAY plywood should comply with the standards specified in Table 4.

T a b l e 4

Item	Thickness, mm	Value of physical and mechanical properties for categories
1 Moisture content: - OVST, % - OVPR, %	6.0 - 30.0	 5 - 12 5 - 10
2 Ultimate shear strength along bondline, MPa, not less than	6.0 - 30.0	1.0
3 Ultimate strength in static bending:	9.0 - 30.0	

- parallel to grain of outer plies, MPa, not less than - perpendicular to grain of outer plies, MPa, not less than		60 30
4 Modulus of elasticity in static bending: - parallel to grain, MPa, not less than - perpendicular to grain, MPa, not less than	9.0 - 30.0	 6,000 3,000
5 Ultimate tensile strength perpendicular to board plane, MPa, not less than - SVEZA OVST plywood - SVEZA OVPR plywood	6.0 - 30.0	 1.75

N o t e s

1. SVEZA OVERLAY plywood shipped from the manufacturer's warehouse should have the moisture content values specified above.

2. The test for determining the shear strength along bondline of EXT / ФСФ category SVEZA OVERLAY plywood is prepared using one of the following methods:

2.1 boiling in water for 1 hour;

2.2 boiling in water for 6 hours;

2.3 boiling in water for 4 hours, drying in a ventilated cabinet at (60 ± 3) °C for (16-20) hours, second boiling in water for 4 hours, cooling in water at (20 ± 3) °C for 1 hour;

2.4 boiling for (72 ± 1) hours, cooling in water at (20 ± 3) °C for 1 hour: quarterly;

2.5 soaking in water at (20 ± 3) °C for 24 hours: quarterly.

Methods 2.4, 2.5 are used to prepare EXT / ФСФ category SVEZA OVERLAY plywood for testing when new resins are tested.

The preparation method for the test pieces (2.1, 2.2, 2.3) is selected as agreed upon between the manufacturer and the customer.

3. The test for determining the shear strength along bondline is performed in different bondlines as agreed upon between the manufacturer and the customer. Wood failure percentage is not determined.

4.4 SVEZA OVERLAY plywood volume is specified in cubic metres. The volume of one sheet is calculated without rounding. The volume of a SVEZA FANCY plywood pack and batch is calculated to an accuracy of 0.001 m^3. The area of a SVEZA FANCY plywood sheet is calculated to an accuracy of 0.01 m^2, the area of sheets in a batch – to an accuracy of 0.5 m^2.

4.5 4.5 The marking is made using an indelible black or purple ink and applied on the end of each SVEZA OVERLAY plywood sheet in the form of a stamp or text without margins. The marking should contain the following information:

- a brief designation of the product according to the declaration of performance (in accordance with DIN EN 13986 [12]);
- SVEZA OVERLAY plywood grade;
- manufacturer (code or name);
- thickness and/or sorter number.

No stamp is applied to the face.

The stamp on the edge is applied in the corner of the long or short end.

It is permitted to apply one stamp per (1-3) sheets of SVEZA OVERLAY plywood of a thickness of 6 to 9 mm.

As agreed upon between the manufacturer and the customer, it is permitted:

- not to apply marking to SVEZA OVERLAY plywood sheets;
- to add additional information to the mandatory marking.

4.6 Stacking of SVEZA OVERLAY plywood

SVEZA OVERLAY plywood sheets 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 OVERLAY plywood sheets may be stacked in packs of other heights.

SVEZA OVERLAY plywood sheets in a pack should be stacked so that their grain directions coincide.

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

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

4.7.1 Packs of SVEZA OVERLAY 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 OVERLAY 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 OVERLAY Birch plywood;
- sizes and thickness of SVEZA OVERLAY plywood and thickness tolerances (if required);
- type and grade of SVEZA OVERLAY plywood according to Appendix D;
- SVEZA OVERLAY plywood category (EXT);
- machining of SVEZA OVERLAY plywood surface;
- sheets per pack;
- shift;
- date of production of SVEZA OVERLAY plywood;
- 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 OVERLAY plywood is produced;
- manufacturer name and address;
- standard compliance mark;
- certification markings;
- 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 OVERLAY plywood is accepted in batches.

A batch is a certain number of SVEZA OVERLAY plywood sheets of the same type, grade and size.

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

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

5.2 SVEZA OVERLAY plywood sheets quality and sizes are checked by selective sampling. The selective check involves random sampling of SVEZA OVERLAY plywood sheets according to GOST 18321 in the number specified in Table 5.

T a b l e 5

In sheets

Batch size	Controlled value under paragraphs			
	3.6.1; 3.6.2; 3.6.3; 3.6.4		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 OVERLAY plywood at least once a month.

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

5.5 The control of the surface waviness involves selection of 1 sheet out of 1000 sheets but at least 1 sheet from an order.

5.6 The control of the formaldehyde release involves selection of one sheet of SVEZA OVERLAY plywood from any size sample.

The formaldehyde release is controlled at least once every 7 days by a gas analysis method as part of the EXT formaldehyde emission group.

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

- the number of SVEZA OVERLAY plywood sheets non-compliant with the requirements in terms of sizes, out of square length, straightness, wood and machining defects is less than or equal to the acceptance number specified in Table 5;
- no sheets of SVEZA OVERLAY 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 INSPECTION METHODS

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

6.2 SVEZA OVERLAY plywood length and width are measured in two points parallel to the edges at a distance of not more than 100 mm from the edges with a metal measuring tape according to GOST 7502 with an error of 1 mm. The actual sheet length (width) is the arithmetic mean of two measurement results.

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

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

The following instruments are used to take the thickness measurements:

- 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 sheet of SVEZA OVERLAY plywood is defined as difference between the maximum and the minimum thickness values after four measurements.

6.4 Out of square length of SVEZA OVERLAY plywood sheet

6.4.1 The out-of-straightness of SVEZA OVERLAY plywood sheet 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 sheet 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 sheet diagonals measured using a metal measuring tape graduated in 1 mm in accordance with GOST 7502.

6.5 The deviation from straightness of SVEZA OVERLAY plywood sheet edges is determined by measuring the maximum gap between the sheet 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 The warping is checked by placing a ruler according to GOST 427 diagonally on a SVEZA OVERLAY plywood sheet laid on a flat horizontal surface and measuring the maximum deflection using a gauge in accordance with GOST 8925 to a tolerance of 1 mm.

6.7 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).

6.11 Formaldehyde release in the environment is according to GOST 30255, GOST 32155, and [1].

6.12 The ultimate tensile strength perpendicular to board plane is according to GOST 10636, [6].

6.13 The surface roughness is according to GOST 15612.

6.14 Measurement of wood and machining defects is according to GOST 30427 and GOST 2140.

6.15 The waviness is not measured but taken into account in the grade definition.

6.15.1 No waviness is permitted for SVEZA OVPR plywood. The waviness is evaluated based on a chalk test. The waviness detection method is described in Appendix F.

6.15.2 No waviness is permitted for SVEZA OVST plywood. The waviness is evaluated based on a visual inspection without using the chalk test.

7 TRANSPORTATION AND STORAGE

7.1 SVEZA OVERLAY 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 OVERLAY plywood moisture content that may result in changes of geometric, physical, qualitative characteristics of the plywood.

7.2 Storage of SVEZA OVERLAY plywood

SVEZA OVERLAY 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 OVERLAY plywood quality complies with requirements of this Standard provided that the transportation and storage conditions are met.

The guaranteed shelf life of SVEZA OVERLAY plywood of EXT category is 5 years from the day of receipt by the customer.

When SVEZA OVERLAY 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 REQUIREMENTS AND ENVIRONMENTAL PROTECTION

9.1 The content of hazardous chemicals released in the air of residential premises and public buildings when items made of SVEZA OVERLAY plywood are used should not exceed the values specified by the requirements of [7], [8], [9].

9.2 The compliance with the requirements of [10], [11] to items made with the use of SVEZA OVERLAY plywood is ensured by the manufacturers of those items through application of the appropriate technological solutions and protective coatings.

9.3 SVEZA OVERLAY 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 OVERLAY 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 OVERLAY 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 OVERLAY plywood should not exceed the hygiene standards specified by the requirements of [11].

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

9.8 SVEZA OVERLAY plywood usually has a long service life and there are several disposal methods used. The disposal method for SVEZA OVERLAY 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 OVERLAY plywood

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

T a b l e A.1

WOOD AND MACHINING DEFECTS	OVPR and OVST type Grade B	OVPR and OVST type Grade S	OVPR type Grade BB	OVST type Grade BB	OVPR and OVST type Grade CP	OVST type Grade C
1. Pin knots	permitted					
2. Sound intergrown knots, light and dark	permitted light ones up to 15 mm in diameter with a check of up to 0.5 mm in the maximum number of 5 per m^2	permitted light ones up to 15 mm in diameter with a check of up to 0.5 mm in the maximum number of 5 per m^2	permitted up to 25 mm in diameter with a check of up to 1 mm in the maximum number of 10 per m^2, checks should be repaired with a filler		permitted with a check of up to 1.5 mm wide, checks should be repaired with a filler	permitted
3. Partially intergrown knots	permitted as specified in par. 4 of this Appendix, up to 6 mm in diameter in the maximum number of 3 per m^2	permitted up to 6 mm in diameter in the maximum number of 3 per m^2	permitted within the limits for intergrown knots up to 15 mm in diameter in the maximum number of 10 per m^2			permitted up to 40 mm in diameter without quantity restrictions
4. Non-adhering knots, falling out knots, knot holes (without bark inclusion)	permitted within the limits for intergrown knots up to 6 mm in diameter in the maximum number of 3 per m^2 provided that they are repaired with a filler	not permitted	permitted within the limits for intergrown knots up to 6 mm in diameter in the maximum number of 6 per m^2 provided that they are repaired with a filler before plywood sanding or should be repaired with wood plugs as specified in par. 17 of this Appendix		permitted up to 6 mm in diameter without quantity restrictions provided that they are repaired with a filler before plywood sanding or should be repaired with wood plugs as speci-	permitted up to 40 mm in diameter without quantity restrictions

WOOD AND MACHINING DEFECTS	OVPR and OVST type Grade B	OVPR and OVST type Grade S	OVPR type Grade BB	OVST type Grade BB	OVPR and OVST type Grade CP	OVST type Grade C
	before plywood sanding				fied in par. 17 of this Appendix	(permitted bark inclusion at knots up to 5 mm wide)
5. Small checks	permitted up to 200 mm long in the maximum number of 5 per metre of the sheet width	permitted up to 200 mm long in the maximum number of 5 per metre of the sheet width	permitted up to 300 mm long in the maximum number of 5 per metre of the sheet width		permitted at the edges and in the middle	
6. Large checks	not permitted	permitted of a length of up to 200 mm, width of up to 1 mm in the maximum number of 2 per metre of the sheet width provided that they are repaired with a filler before plywood sanding	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 sheet width provided that they are repaired with a filler before plywood sanding	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 sheet width provided that they are repaired with a filler before plywood sanding	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 sheet width + permitted of a length of up to 600 mm, width of up to 5 mm provided that they are repaired with a filler before plywood sanding	permitted of a length of up to 800 mm, width of up to 10 mm, without quantity restrictions
7. Open joint of spliced veneer	it is not permitted to use spliced veneer in the OVPR and OVST plywood face					
8. Irregularities in wood structure (sloping grain, curly grain, swirl, small knots from dormant buds)	permitted					
9. 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 intergrown knots			
10. Defects of wood structure (open inbark)	permitted in the total number within the limits for non-adhering knots					
11. Sound discoloration	not permitted			permitted	permitted	

WOOD AND MACHINING DEFECTS	OVPR and OVST type Grade B	OVPR and OVST type Grade S	OVPR type Grade BB	OVST type Grade BB	OVPR and OVST type Grade CP	OVST type Grade C
(false heartwood)				up to 25% of the sheet surface		
12. Sound discoloration (spots, streaks, streak marks)	permitted light ones not more than 15 % of the sheet surface area	permitted light ones of a length of up to 175 mm and width of up to 4 mm in the maximum number of 5 per m^2	permitted of a length of up to 250 mm and width of up to 10 mm in the maximum number of 10 per m^2	permitted		
13. Sound discoloration (group streaks)	permitted light ones not more than 15 % of the sheet surface area	permitted light ones of a size of not more than 30x30 mm in the maximum number of 1 per m^2	permitted light ones of a size of not more than 60x40 mm in the maximum number of 1 per m^2	permitted		
14. Discoloration due to oxidation; sapwood discoloration caused by wood-staining fungi (blue stain, sapwood color stains), discoloration during storage, gradient discoloration	not permitted			permitted		
15. Biological defects (wormhole)	permitted in the total number within the limits for non-adhering knots					
16. Discolouration with partial wood damage	not permitted					
17. Repairing of knots and holes with wood	not permitted	permitted in the maximum number of 4 per	permitted in the maximum number of 8 per m^2 with plugs of different shapes and sizes, the		permitted with a gap of 1 mm on one side or 0.5 mm	permitted

WOOD AND MACHINING DEFECTS	OVPR and OVST type Grade B	OVPR and OVST type Grade S	OVPR type Grade BB	OVST type Grade BB	OVPR and OVST type Grade CP	OVST type Grade C
plugs		sheet with plugs of different shapes and sizes, the wood colour and grain direction should correspond to the wood colour and grain direction of the outer ply	wood colour and grain direction should correspond to the wood colour and grain direction of the outer ply		on both sides	
18. Double plug	not permitted			permitted in the maximum number of 1 per m^2	permitted	
19. Repairing of large checks with veneer plugs	not permitted		large checks up to 2 mm wide should be repaired with a filler before plywood sanding; more than 2 mm wide should be repaired with glued in veneer plugs		large checks more than 5 mm wide should be repaired with glued in veneer plugs	permitted
20. Bulges due to overlapping inner plies (marks indicating plies overlap)	not permitted		permitted of a length of up to 200 mm, width of up to 3 mm in the maximum number of 3 per sheet	permitted of a length of up to 200 mm, width of up to 10 mm in the maximum number of 3 per sheet	permitted of a length of up to 600 mm, width of up to 10 mm in the maximum number of 5 per sheet	permitted
21. 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 sheet 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 sheet width	permitted
22. Marks left by tools and equipment (marks left by battens, stripes)	not permitted		permitted up to 10 % of the sheet surface		permitted	
23. Glue penetration	not permitted		permitted up to 2% of the sheet surface (for a thickness between 6 mm and 21 mm) permitted up to 5% of the sheet surface (for a thickness of 24 mm and more)		permitted up to 5% of the sheet surface (for a thickness between 6 mm and 21 mm) permitted up to 10% of the sheet surface (for a thick-	permitted

WOOD AND MACHINING DEFECTS	OVPR and OVST type Grade B	OVPR and OVST type Grade S	OVPR type Grade BB	OVST type Grade BB	OVPR and OVST type Grade CP	OVST type Grade C
					ness of 24 mm and more)	
24. Marks left by tools and equipment, pinholes, kerfs	permitted in the total number within the limits for non-adhering knots					
25. 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
26. Warp	it is not considered for plywood up to 6.5 mm thick, for plywood over 6.5 mm thick it is permitted with the maximum deflection of not more than 15 mm per sheet					
27. Blisters, delamination (incl. in bending), bark pocket	not permitted					
28. Sander skips (non-uniform sanding)	not permitted			permitted 5 mm from the edge	permitted up to 5 % of the sheet surface	permitted up to 50 % of the sheet surface
29. Sanding through the outer plies	not permitted				permitted up to 1% of the sheet surface (for a thick-ness between 6 mm and 21 mm) permitted up to 2% of the sheet surface (for a thick-ness of 24 mm and more)	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 up to 5 mm wide on the edge		permitted of a width of not more than 10 mm
32. Coarse peeling	not permitted			permitted up to 5 % of the sheet surface	permitted up to 15 % of the sheet surface	permitted
33. Waviness (for sanded plywood), fuzzy grain, ripple	not permitted					

WOOD AND MACHINING DEFECTS	OVPR and OVST type Grade B	OVPR and OVST type Grade S	OVPR type Grade BB	OVST type Grade BB	OVPR and OVST type Grade CP	OVST type Grade C
34. Surface roughness	roughness R_m 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. 13 of this Appendix	permitted		
36. Glued in pieces of veneer	not permitted				permitted of a length of up to 150 mm, width of up to 30 mm in the maximum number of 1 per sheet	permitted

Note:
1. No defects not specified in Appendix A are permitted;
2. No residues of the filler on a sanded plywood surface are permitted.

APPENDIX B
(mandatory)

Terms and definitions of machining defects of outer plies of SVEZA OVERLAY plywood

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

T a b l e 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
Waviness	The surface roughness in the form of regularly alternating elevations and depressions that result from the sanding process.

APPENDIX C
(mandatory)

Limits for wood and machining defects of inner plies of SVEZA OVERLAY Premium plywood

The limits for wood and machining defects of inner plies of SVEZA OVERLAY Premium plywood are given in Table C.1

T a b l e C.1

WOOD AND MACHINING DEFECTS	1 inner layer (S1)	2 inner layer (S2)
1. Pin knots	permitted	
2. Sound intergrown knots, light and dark	permitted	
3. Partially intergrown knots	permitted	
4. Non-adhering knots, loose knots, knot holes (without bark inclusion), tobacco knots	permitted of not more than 15 mm in diameter unlimited in quantity	permitted of not more than 40 mm in diameter unlimited in quantity
5. Closed cracks	permitted up to 600 mm in length	
6. Open cracks	permitted with a length of not more than 350 mm and a width not more than 3 mm	permitted with a length of not more than 400 mm and a width not more than 5 mm
7. Use of composed veneer	permitted	
8. Use of spliced veneer	permitted	
9. Bark	not permitted	
10. Chemical stains; sapwood fungal stains (blueness, colored sapwood stains), discoloration during wood storage without wood integrity damage	permitted	
11. Wood structure defects (diagonal grain, swirly grain, burls, or bud traces)	permitted	
12. Discoloration with partial wood integrity damage	permitted not more than 25 % of the veneer surface	permitted
13. Biological damage (wormholes), mechanical damage (incl. punctures)	permitted within the limits for loose knots	
14. Repair of knots and holes by wooden inserts, including double ones	permitted unlimited in quantity; loose inserts not permitted, paper tape (taped inserts) not permitted	
15. Soot, sooty dust, combustion products on veneer surface	not permitted	
16. Stains of production nature (beam traces, water stains), scratches, ribs, bumps, dents	permitted	
17. Sound discoloration (false heartwood, spots, streaks, group streaks)	permitted	
18. Coarse peeling	permitted without cutting fibers	
19. Open inbark without bark inclusion	permitted within the limits for loose knots	
20. Wood structure defects (inner inbark light/dark)	permitted	
21. Bark inclusions through and non-through located in the middle zone	not permitted if non-through; through bark inclusions are permitted within the limits for loose knots	
22. Bark inclusions, through, located in	permitted with depth not exceeding 30 mm	

the edge zone		
23. Litter, bumps	not permitted	permitted without wood integrity damage
24. Resin pocket	permitted without bark inclusion	permitted
25. Other defects	permitted provided that they do not affect the plywood quality and sizes specified in this Standard	

APPENDIX D
(mandatory)

Designation of SVEZA OVERLAY plywood types and grades

The designation of SVEZA OVERLAY plywood grades is given in Table D.1

T a b l e D.1

Latin letters	Roman numerals	Text on the label in the "Grade" field
SVEZA OVERLAY Premium plywood		
B/B	I/I	OVPR B/B (I/I)
B/BB	I/II	OVPR B/BB (I/II)
B/CP	I/III	OVPR B/CP (I/III)
S/BB	I/II	OVPR S/BB (I/II)
BB/BB	II/II	OVPR BB/BB (II/II)
BB/CP	II/III	OVPR BB/CP (II/III)
CP/CP	III/III	OVPR CP/CP (III/III)
SVEZA OVERLAY Standard plywood		
B/BB	I/II	OVST B/BB (I/II)
B/CP	I/III	OVST B/CP (I/III)
S/BB	I/II	OVPR S/BB (I/II)
BB/BB	II/II	OVST BB/BB (II/II)
BB/CP	II/III	OVST BB/CP (II/III)
CP/CP	III/III	OVST CP/CP (III/III)
CP/C	III/IV	OVST CP/C (III/IV)

APPENDIX E
(mandatory)

SVEZA OVERLAY Premium plywood lay-up diagram

SVEZA OVERLAY Premium plywood lay-up is presented in Table E.1.

T a b l e E.1

Outer ply	S1	S2	S2	S2	. . .	S2	S2	S2	S1	Outer ply
I	**-**	**I**	**-**	**I**	**. . .**	**I**	**-**	**I**	**-**	**I**

APPENDIX F
(mandatory)

Determination of waviness of SVEZA OVERLAY plywood surface (Chalk test)

F.1 The determination of waviness of SVEZA OVERLAY plywood surface is aimed at checking the plywood surface quality after sanding. It is used as the simplest method of detecting waviness and other grinding defects.

F.2 Use chalk or a pencil's graphite to shade the surface at an angle to the sanding direction as shown in Figure 2. The waviness is seen in the form of typical straight, regularly alternating lines:

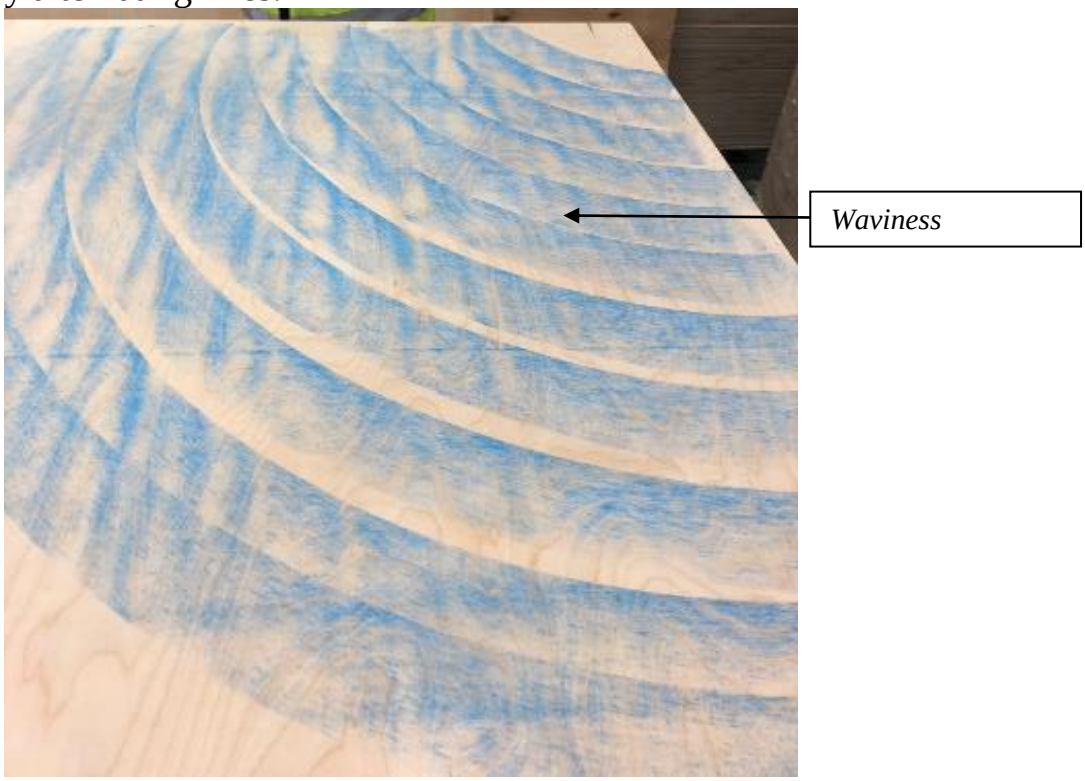

Figure 2

Note: The waviness is not measured but taken into account in the grade definition.

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[7] GN (hygienic standards) 2.1.6.3492-17	Maximum allowable concentrations (MAC) of pollutants in the atmospheric air of urban and rural settlements
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[10] TR CU 025/2012	Technical Regulations of the Customs Union On Safety of Furniture Products
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[12] DIN EN 13986 (German version of EN 13986-2004+A1-2015)	Wood-based panels for use in construction – 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 OVERLAY birch plywood, sizes, technical requirements, packaging, marking, inspection methods, transportation, storage, warranty.

Standard developer company
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