



CORPORATE STANDARD

SVEZA OIL HARDWOOD PLYWOOD Technical Specifications

STO 52654419-012-2018

Saint Petersburg
2018

Preface

Development purposes and objectives, as well as the use of corporate standards in the Russian Federation, are stated by Federal Law 184-FZ *On Technical Regulation* of December 27, 2002 and Federal Law of June 29, 2015.

No. 162-FZ *On Standardization in the Russian Federation*.

Development and execution rules are stated by GOST R 1.0-2012 *Standardization in the Russian Federation. General provisions* and GOST R 1.4-2004 *Standardization in the Russian Federation. Corporate Standards. General Provisions*, subject to GOST R 1.5-2012, *Standardization In the Russian Federation. National standards. Regulations on arrangement, representation, execution, and designation*.

Standard Information

1 DEVELOPED AND INTRODUCED by SVEZA Forest, a limited liability company

2 APPROVED AND ENACTED by order of the General Director of OOO SVEZA Forest dated _____ 20___.No. _____

3 FIRST RELEASE

4 APPROVED by OOO SVEZA Forest Sales and Marketing Director R.A. Muzyka _____, ____ 20 ____

5 EXPERT OPINION OBTAINED from the Federal State-Funded Institution Kostromskoy CSM FBU Ref. No. 0156 dated May 31, 2018.

This standard may only be used for work with the written consent of OOO SVEZA Forest.

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CORPORATE STANDARD

SVEZA OIL HARDWOOD PLYWOOD Technical Specifications

Hardwood Plywood SVEZA OIL Technical requirements

Effective since _____, 20__

1 SCOPE

This corporate standard (hereinafter – standard) applies to SVEZA OIL hardwood plywood (hereinafter – SVEZA OIL plywood).

SVEZA OIL plywood is a multipurpose plywood with birch veneer external plies, designed for concrete work with a low quantity of uses (2 to 5 cycles).

2 REGULATORY REFERENCES

This standard hereby includes regulatory reference to the following standards:

GOST 427-75 Metal rulers. Technical Specifications

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

GOST 3749-77 90° L-squares. Technical Specifications

GOST 6507-90 Micrometers. Technical Specifications

GOST 7016-2013 Products of wood and wooden materials. Surface roughness parameters

GOST 7502-98 Metal measuring tapes. Technical Specifications

GOST 8925-68 Feeler gauges for machine tool accessories. Design

GOST 9620-94 Glued laminated timber. Sampling and general requirements for testing

GOST 9621-72 Glued laminated timber. Methods for determination of physical properties

GOST 9624-2009 Glued laminated timber. Method for determination of shear strength

GOST 9625-2013 Glued laminated timber. Methods for determination of strength and modulus of elasticity in static bending.

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

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

GOST 18321-73 Statistical quality control. Item random sampling methods

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

GOST 30255-2014 Furniture, wood, and polymer materials. The method for determination of formaldehyde and other volatile chemicals in the air of climate chambers

GOST 30427-96 General purpose plywood. General requirements for classification by appearance

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

STO 52654419-001-2018: General-purpose plywood with birch-veneer face plies. Technical Specifications

Note: When using this standard it is advisable to check validity of the standards referenced against the National Standards reference index.

3 CLASSIFICATION AND DIMENSIONS

3.1 SVEZA OIL plywood with the EXT/FSF mark is manufactured according to the degree of glue joint water resistance: plywood with enhanced water resistance of the glue joint, glued using phenol-formaldehyde adhesives, and intended for indoor and outdoor usage.

Note: SVEZA OIL plywood is included in the EXT formaldehyde emission group.

3.2 Based on appearance, the following grades of SVEZA OIL plywood are manufactured:

— OIL CP/CP (III/III);

— OIL CP/C (III/IV).

The grade designator is indicated by both Latin letters and Roman numerals.

3.3 As for the degree of surface mechanical processing, SVEZA OIL plywood is manufactured non-sanded - NS / HIII.

3.4 Dimensions

3.4.1 The SVEZA OIL plywood is manufactured in 1500 x 750 mm format.

Length and width of SVEZA OIL plywood sheets must be as shown in Table 1 below.

Table 1

In millimeters		
Description	Size	Maximum deviation
Length	1500	±4.0
Width	750	±3.0
Notes:		
1. SVEZA OIL plywood may be produced with other dimensions and maximum deviations by agreement between the manufacturer and the customer		
2. The SVEZA OIL plywood sheet length is measured along the grain of the face plies		

3.4.2 Thickness and number of plies of SVEZA OIL plywood should be as shown in Table 2 below.

Table 2

Nominal Thickness Plywood	Number of plies	Maximum de- viation	In millimeters
			Thickness variation, not exceeding
12	9	+ 1.1 - 0.6	1.0
15	11	+ 1.2 - 0.7	1.5
18	13	+ 1.3 - 0.8	
21	15	+1.0 - 1.1	

Note - SVEZA OIL plywood is permitted to be produced with other thicknesses, number of layers, and maximum deviations by agreement between the manufacturer and the customer.

3.4.3 SVEZA OIL plywood sheets must be cut square.

Out-of-squareness must not exceed 2 mm per 1 m of the sheet edge length, when checked as per section 6.4.1.

Difference in the diagonal lengths must not exceed 2 mm per 1 m of the sheet edge length, when checked as per section 6.4.2.

3.4.4 Out-of-straightness for the edges must not exceed 2 mm per 1 m of the sheet length.

3.5 SVEZA OIL plywood marking must include the following information:

- product name;
- grade;
- combination of face veneer grades (using Latin letters and Roman numerals);
- emission class;
- surface treatment type;
- dimensions;
- this Standard number.

Example of identification marking for hardwood plywood SVEZA OIL EXT/FSF, of OIL CP/CP (III/III) grade, emission class E1, non-sanded, 1500 mm length, 750 mm width, 15 mm thickness:

*Фанера SVEZA OIL лиственная / Hardwood Plywood SVEZA OIL,
EXT / FSF, OIL CP/CP (III/III), E1, NS / HIII, 1500 x 750 x 15
STO 52654419-012-2018*

4 TECHNICAL REQUIREMENTS

4.1 Characteristics

4.1.1 Birch veneer up to 2.0 mm thick is used for manufacture of inner and outer plies of SVEZA OIL plywood.

By agreement of manufacturer with the customer, inner plies of SVEZA OIL plywood may be manufactured from aspen veneer 1.5 to 3.0 mm thick.

4.1.2 Distillate oil or mixture of residual and distillate petroleum oils (hereinafter referred as oil) shall be used for coating of face plies of SVEZA OIL plywood.

4.1.3 In order to protect from moisture absorption, SVEZA OIL plywood butt ends shall be coated with acrylic water-based paint.

By the agreement between the manufacturer and the customer the plywood butt ends may be coated with oil or left uncoated.

4.1.4 In face plies of the SVEZA OIL plywood, wood flaws and processing defects that exceed the limits specified in Appendix A are not allowed.

Terms and definitions of wood flaws and processing defects are as per GOST 30427 and Appendix B.

4.1.5 In inner plies of SVEZA OIL plywood, wood flaws and processing defects that do not affect plywood quality and dimensions, requirements to which are set forth in the present standard, are allowable.

4.1.6 It is allowable to compose outer plies of SVEZA OIL plywood from an unlimited quantity of veneer strips without color matching.

4.1.7 Knots, holes, and cracks shall be filled with veneer inserts of various shapes and sizes. Defect areas up to 30 mm wide may be filled with rectangular veneer inserts through the full length of defect.

The veneer inserts must be attached firmly, match the surface, and correspond to the SVEZA OIL plywood outer ply timber species.

The filler shall match the timber color, not flake during the SVEZA OIL plywood machining and bending, without cracking.

4.2 Formaldehyde content in the plywood and formaldehyde emission from SVEZA OIL plywood into the room air must comply with the value specified in Table 3.

Table 3

Emission class	Formaldehyde content per 100 grams of absolutely dry weight of plywood (mg)	Formaldehyde release	
		Chamber method (mg/m ³ of air)	Gas analysis method, (mg/m ² ·h)
E1	Up to 8.0 inclusively	Up to 0.124	Up to 3.5 inclusive, or less than 5.0 during 3 days after manufacturing

4.3 For physical and mechanical performance of SVEZA COLOR plywood see Table 4 and 5.

Table 4

Parameter name	Physical and mechanical parameter values
1 Moisture (%)	5 – 12
2 Density: — for SVEZA OIL plywood with inner and outer plies of birch veneer (kg/m ³), not less — for SVEZA OIL plywood with outer plies of birch veneer and inner plies of aspen veneer (kg/m ³), not less	600 450
3 Static bending strength: — along the grain of face plies (MPa), min — across the grain of face plies (MPa), min	60 30
4 Modulus of elasticity in static bending: — along the grain (MPa), min — across the grain (MPa), min	6000 3000
Note — Indicated moisture limits should be adhered when shipping the SVEZA OIL plywood from the manufacturer's warehouse	

Table 5

Average value of shear strength through adhesive layer (MPa)	Percentage of destruction in wood
Greater than 0.2 up to 0.4 inclusively	Greater than or equal to 80
Greater than 0.4 up to 0.6 inclusively	Greater than or equal to 60
Greater than 0.6 but less than 1.0	Greater than or equal to 40
1.0 and more	—
Notes: 1. Preparation of SVEZA OIL plywood for the test shall be performed with one of the methods: 1.1 boiling in water for 1 hour; 1.2 boiling in water for 6 hours; 1.3 boiling in water for 4 hours, drying in a vented cabinet for (16–20) hours, repeated hold in boiling water for 4 hours, and cooling in water for 1 hour; 1.4 boiling in water for (72 ± 1) hours, cooling in water for 1 hour - once per 3 months; 1.5 soaking in water (20 ± 3) °C for 24 hours - once every 3 months; Methods 1.3, 1.4, 1.5 are used for preparation of face-filmed plywood for test in case of new resins testing. The method of preparing samples shall be selected by agreement of the manufacturer with the customer. 2. Percentage of destruction in wood is determined visually. 3. The shear test shall be performed in various adhesive layers by agreement between the manufacturer and customer.	

4.4 SVEZA OIL plywood stock is accounted for in cubic meters. One sheet's volume is calculated without regard to rounding. The volume of assembled plywood stacks and batches is calculated with accuracy of 0.001 m³. The area of a single plywood sheet is calculated with accuracy of 0.01 m², and the area of the sheets in a batch with accuracy of 0.5 m².

4.5 Marking shall be applied to the corner of longitudinal or transversal butt end of each SVEZA OIL plywood sheet as a stamp or text without margins.

In case of SVEZA OIL plywood butt ends coated with acrylic water-based paint - the marking shall be applied with a white paint.

In case of SVEZA OIL plywood butt ends coated with oil or without coating - the marking shall be applied with a paint of black or violet color.

Marking must include the following information:

- manufacturer (number or name);
- plywood type,
- plywood grade.

Note - for example, 45 EXT OIL CP/CP (III/III).

Allowable by agreement between the manufacturer and the customer:

- to not mark SVEZA OIL plywood sheets;
- to not include additional information in the mandatory marking.

4.6 Packing of SVEZA OIL plywood

The SVEZA OIL plywood must be packed into 400 and 600 mm high stacks according to size and thickness.

By agreement between the manufacturer and the customer, the SVEZA SVEZA OIL plywood may be packed in stacks of a height other than that specified.

4.7 Packing and labeling of ready stacks of SVEZA OIL plywood

4.7.1 Packing of the SVEZA OIL plywood stacks shall ensure their integrity and preserve the stacks during transportation.

Main packing methods and types are regulated by OOO SVEZA Forest. By agreement of manufacturer with the customer, other types and methods of plywood packing may be used.

4.7.2 Marking of packed plywood stacks shall be performed with labels. The label text shall be in Russian and/or English, placed on two parallel or perpendicular side strips. Both labels shall bear the same information:

- trademark;
- product designation – Hardwood Plywood SVEZA OIL / Фанера SVEZA OIL ЛИСТВЕННАЯ;
- dimensions, plywood thickness and thickness tolerance value (if required);
- plywood grade – OIL CP/CP (III/III) or OIL CP/C (III/IV);
- plywood type – EXT/FSF;
- type of mechanical treatment used for the plywood face - NS / HIII;
- number of sheets in a stack;
- working shift;
- plywood production date;
- emission class;

- order No. as per Special Terms and Conditions (by agreement with the customer);
- reference document, governing plywood manufacture;
- manufacturer name and address;
- certification signs and quality control marks;
- handling signs: “Keep Dry” and “Use No Hooks”;
- barcode (if a data collection terminal (scanner) is available).

For more streamlined storage operations, additional marking may be applied using labels or stencils.

5 ACCEPTANCE REQUIREMENTS

5.1 SVEZA OIL plywood shall be accepted in lots.

Lot means a certain number of SVEZA OIL plywood sheets of the same thickness and size.

For each lot, a single supporting document must be issued, containing the following information:

- trademark;
- manufacturer name and address;
- plywood mark;
- lot size;
- name of the process standard to which the plywood should comply.

5.2 The quality and dimensions of SVEZA OIL plywood sheets shall be checked by means of selective sampling and testing. In sampling inspection, sheets of SVEZA OIL plywood are selected by means of “random” sampling as per GOST 18321 in the quantity stated in Table 6.

Table 6

In sheets

Lot size	Checked parameter as per sections herein			
	3.4.1; 3.4.2; 3.4.3; 3.4.4		4.1.4; 4.1.5; 4.1.6; 4.1.7	
	Sample size	Acceptance number	Sample size	Acceptance number
Up to 500	8	1	13	1
501-1200	13	1	20	2
1201-3200	13	1	32	3
3201-10,000	20	2	32	3

5.3 Moisture, density, shear strength through the adhesive layer, strength in static bending across and along the face plies, modulus of elasticity for static bending along and across the grains of the face plies should be checked for each thickness and number of plies of SVEZA OIL plywood at least once per month.

Testing of each lot is allowed as agreed by the manufacturer with the customer, and for this purpose 0.1% of sheets shall be selected from the lot, but at least one sheet.

5.4 For the purpose of formaldehyde content and/or emission testing, one SVEZA OIL plywood sheet shall be selected from any sampling volume.

The formaldehyde content reading shall be tested at least once every 30 days within the EXT formaldehyde emission group.

The formaldehyde emission reading shall be tested at least once every 7 days within the EXT formaldehyde emission group.

5.5 For SVEZA OIL plywood provided for acceptance, it is allowable to apply values of physical and mechanical tests and also tests on the content and/or emission of free formaldehyde of plywood as per STO 52654419-001 (of CP/CP (III/III) and CP/C (III/IV) grades) manufactured in the same period.

5.6 The lot is considered as compliant to the applicable requirements of the standard and are accepted, provided that in the samples:

- the number of SVEZA OIL plywood sheets not complying with the standard requirements in terms of dimensions, out-of-squareness, out-of-straightness, wood defects, and processing defects, shall be less than or equal to the acceptance number established in Table 6;

- all SVEZA OIL plywood sheets are free from blisters, ply splitting, or bark patch;

- the physical and mechanical properties are in conformity with the values established in Tables 4 and 5;

- the formaldehyde content and/or emission are compliant with limits set forth in Table 3.

6 TEST METHODS

6.1 Sampling procedure — as per GOST 9620, GOST 27678, GOST 30255, GOST 32155, [1], [2].

6.2 SVEZA OIL plywood length and width are measured at two points parallel to the edges, at least 100 mm from edges with a metal tape according to GOST 7502 with an error of 1 mm. The arithmetic mean value of the two measurements is considered the actual length (width) of the sheet.

6.3 The thickness shall be measured at least 25 mm from edges, in the middle of each sheet's face.

The arithmetic mean value of the four measurements is considered the actual thickness of the sheet.

The following devices are used for thickness measurement:

- thickness gauge as per GOST 11358 with a scale division not exceeding 0.1 mm;

- micrometer as per GOST 6507 with a scale division not exceeding 0.1 mm;

Thickness difference in one plywood sheet is defined as the difference between the maximum and the minimum thickness of the four measurements.

6.4 Out-of-squareness of a sheet of SVEZA OIL plywood

6.4.1 Out-of-squareness of SVEZA OIL plywood sheet shall be measured as per GOST 30427. The out-of-squareness value sheet shall be measured with a measurement square as per GOST 3749. Out-of-squareness is defined by measuring the maximum deviation of the sheet edges from the L-square surface using a metal ruler in accordance with GOST 427 with an error of 1 mm.

6.4.2 Out-of-squareness may be also determined by the difference of diagonal lines of the sheet measured by metal measuring tape as per GOST 7502 with a scale division of 1 mm.

6.5 Out-of-straightness of a SVEZA OIL plywood sheet's edges shall be determined by measuring the maximum gap between the sheet's edge and the edge of the metal ruler using a probe according to GOST 8925 with an error of 0.2 mm.

6.6 Warping — as per GOST 30427.

6.7 Moisture — GOST 9621, [3].

6.8 Density — as per GOST 9621, [4].

6.9 Shear strength through adhesive layer — as per GOST 9624, [5].

6.10 Modulus of elasticity in static bending and strength — per GOST 9625, [6].

6.11 Formaldehyde content as per GOST 27678; formaldehyde emission into the environment as per GOST 30255, GOST 32155 and [1].

6.12 Surface roughness — as per GOST 15612.

6.13 Measurement of wood flaws and processing defects as per GOST 30427 and GOST 2140.

7 TRANSPORTATION AND STORAGE

7.1 SVEZA OIL plywood should be transported in enclosed vehicles according to the haulage rules applicable to the respective means of transport.

Contact with moisture should be avoided during transportation in order to avoid changes in geometry, physical parameters and quality of the SVEZA OIL plywood.

7.2 Storage of SVEZA OIL plywood.

The SVEZA OIL plywood must be stored indoor in stacks placed horizontally on pallets or on wooden shims, at a temperature between $-40\text{ }^{\circ}\text{C}$ and $+50\text{ }^{\circ}\text{C}$ and relative humidity up to 80%.

8 MANUFACTURER'S WARRANTY

The manufacturer guarantees conformance of SVEZA OIL plywood to the quality requirements hereby if transportation and storage conditions are satisfied.

The EXT / FSF grade SVEZA OIL plywood guaranteed shelf life is 5 years following the day of receipt by customer.

If the SVEZA OIL plywood is to be used for further processing, it is recommended to contact the manufacturer for more details about the properties and specifications of the plywood.

9 SAFETY AND ENVIRONMENTAL REQUIREMENTS

9.1 The content of hazardous chemicals emitted during use of SVEZA OIL plywood products must not exceed the limits as per requirements [7], [8], and [9].

9.2 SVEZA OIL plywood must be produced using materials and components approved by the national sanitary and epidemiological inspection authorities.

9.3 Only persons age 18 and older with a clean bill of health are allowed to work in SVEZA OIL plywood production. Medical examinations are conducted according to the applicable instructions from the Ministry of Health of the Russian Federation.

9.4 Personnel involved in SVEZA OIL plywood manufacturing must be provided with personal protective equipment according to the applicable regulations under the Order of Ministry of Labor of Russian Federation dated 17.11.2016 No. 665H.

10.5 Specific activity of Cesium 137 in SVEZA OIL plywood must not exceed health standards set forth in [10].

9.6 SVEZA OIL plywood usually has a long service life, and there are a number of ways to recycle it. SVEZA OIL plywood must be recycled taking into account the requirements regarding recycling in the effective laws of various countries.

10 RECOMMENDATIONS FOR USE

10.1 Sawing of SVEZA OIL plywood

Sawing of SVEZA OIL plywood for parts shall be performed with band or circular saws.

To obtain a clean cut, the sawing shall be performed correctly - first, the sawing shall be done transversely to the grain direction, and then lengthwise. This method makes it possible to avoid splitting the corners and to decrease face chip size and quantity.

While sawing with a circular saw, high speed and low feed rate are recommended.

To prevent plywood from moisture absorption while sawing, the SVEZA OIL plywood butt ends must necessarily be treated with special types of water-based emulsion paint or other sealant.

10.2 Drilling of SVEZA OIL plywood

10.6 All the holes made during installation work, in order to prevent moisture penetration into the SVEZA OIL plywood must be filled with water-based emulsion paint or other sealants, and it is recommended to treat the sheet surface with water-repellent compound.

To obtain a hole with even edges, a sufficiently sharp drill fitted with a front cutter shall be used.

Use of a padding sheet is recommended to avoid splitting on the board reverse face.

To avoid splitting of SVEZA OIL plywood plies while using nails, use of nails with thread or special wood screws is recommended. A distance from the sheet edge to nail of 12 to 15 mm is considered as recommended.

10.3 In case of SVEZA OIL plywood use for concrete work for premises fine and/or pre-fine finishing, it is recommended to perform test concrete pouring for assessment of results.

10.4 After completion of formwork the SVEZA OIL plywood surface shall be carefully cleaned from residues of concrete mixture to avoid damage of external ply, coated with oil.

10.5 After long-term use the moisture content in SVEZA OIL plywood increases significantly; this decreases the plywood structural performance and may cause non-uniform alteration of dimensions and deformation (swelling) due to the natural property of timber to absorb moisture from the environment. This is not a defect.

Therefore the SVEZA OIL plywood shall be dried between cycles. To avoid external deformations, the plywood shall be dried under natural conditions.

APPENDIX A
(mandatory)

**Limit values for wood flaws and processing defects — as per GOST 30427 for
outer plies of SVEZA OIL plywood**

Limit values for wood flaws and processing defects as per GOST 30427 for outer plies of plywood are presented in Table A.1

Table A.1

Wood flaws and processing defects	CP (III) grade	C (IV) grade
1. Pin knots	Permitted	
2. Sound knots, intergrown, light and dark	allowed with the crack up to 1 mm width	Permitted
3. Partially intergrown knots	intergrown knots up to 15 mm in diameter, 10 m ² maximum — allowed	allowable: any number with diameters up to 40 mm
4. Black knots, loose knots, knot holes (no bark inclusions)	allowable: any number, with diameters up to 6 mm	allowable: any number with diameters up to 40 mm (bark patches up to 5 mm wide allowed near the knot)
5. Closed cracks	edge and middle cracks are allowable	
6. Open cracks, open joint on spliced veneer	allowable: up to 2 per meter of sheet width, up to 600 mm long and up to 2 mm wide + up to 600 mm long and up to 5 mm wide, provided they are filled up using sealing agent	allowable up 800 mm long and up to 10 mm wide, no limitation on number
7. Timber structure flaws (diagonal grain, swirly grain, burls, bud traces)	Permitted	
8. Timber structure flaws (light/dark inner inbark)	light inbark — allowable, dark inbark is allowable within the dimensions of intergrown knots	
9. Timber structure flaws (surface inbark)	allowable within the total number under the black knot requirements	
10. Sound discoloration (false heartwood)	up to 75 % of surface — allowable	
11. Sound discoloration (stains, streaks, streak traces, batch streaks)	Permitted	
12. Chemical colorations, sap stains (blue and colored sap stains), discoloration after storage of wood without compromising of the wood integrity	allowable: up to 75% of the sheet surface area (false heartwood included)	Permitted

Appendix A — continued

Wood flaws and processing defects	CP (III) grade	C (IV) grade
13. Biological damages (wormholes)	allowable within the total number under the black knot requirements	
14. Discoloration with partial wood integrity damage	not allowable	
15. Patching of knots and holes with wood inserts	allowable with 1 mm gap from one side or 0.5 mm gap from both sides	Permitted
16. Double insert	Permitted	
17. Patching of cracks Note: patching of cracks with sealing agents or inserts - by agreement with the customer.	open cracks wider than 5 mm must be patched with glued veneer inserts	Permitted
18. Faceplate bulges (imprinted)	allowable: up to 600 mm long and up to 10 mm wide in total not more than 5 per sheet	Permitted
19. Overlaps	allowable: up to 2 per meter of sheet width, up to 300 mm long and up to 2 mm wide	Permitted
20. Stains from manufacturing (beam traces, strips)	Permitted	
21. Glue penetration	up to 5 % of surface — allowable	Permitted
22. Mechanical damage (cuts, holes)	allowable within the total number under the black knot requirements	
23. Scratches, ribs, blows, ridges	allowable up to 120 mm long, up to 10 mm wide and 0.5 mm in height (depth)	Permitted
24. Warping	allowable: not more than 15 mm per 1 m of plywood sheet diagonal	
25. Presence of glue line	Permitted	
26. Blisters, delamination, bark patches	not allowable	
27. Unsanded stains (nonuniform sanding)	up to 5 % of surface — allowable	up to 50 % of surface — allowable
28. Oversanding of surface layers	up to 1 % of surface — allowable	up to 5 % of surface — allowable
29. Metal inclusions	brackets of non-ferrous metals are allowable	
30. Edge defects caused by sanding, trimming (fringes), absence of veneer	up to 5 mm wide along sheet edge	up to 10 mm wide
31. Rough peeling	up to 15% of surface — allowable	Permitted
32. Waviness (for sanded plywood), roughness, ripple	Permitted	
33. Surface roughness	roughness parameter R_m up to 200 μm (as per GOST 7016)	
34. Pockets (no bark inclusions)	Permitted	

Appendix A — end

Wood flaws and processing defects	CP (III) grade	C (IV) grade
35. Glued veneer particles	allowable: up to 150 mm long and up to 30 mm wide, 1 per sheet	
36. Paint, oil streaks	Permitted	
37. Irregularity of plywood surface color, oil stains	Permitted	

Note: Any wood flaws and processing defects not specified in Appendix A are not permissible.

APPENDIX B
(mandatory)

**Terms and definitions of processing defects
of the outer layers of SVEZA OIL plywood**

Terms and definitions of processing defects of external layers of the SVEZA OIL plywood are specified in Table B.1

Table B.1

Name of the processing defect	Description
Glued veneer particles	Veneer particles glued to or pressed into plywood surface
Rough peeling	Dense small surface recessions caused by local removal of wood during peeling
Pocket	Cavity inside the wood or between annual layers filled with gum resins.
Paint, oil streaks	Paint or oil intrusion on the plywood sheet face
Irregularity of plywood surface color, oil stains	Irregular color plywood surface areas due to oil application technology

References

- [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 quality control. Part 1: Testing sample selection and cutting, expressing test results
- [3] EN 322:1993 Wood-based panels. Determination of moisture content
- [4] EN 323:1993 Wood-based panels Determination of density
- [5] EN 314-1:2004 Plywood. Bond quality. Part 1. Test methods
- [6] EN 310:1993 Wood-based panels. Determination of the modulus of elasticity in bending and bending strength
- [7] GN 2.1.6.3492-17 Maximum allowable concentrations (MAC) of pollutants in the atmospheric air of urban and rural settlements
- [8] GN 2.1.6.2309-07 Tentative safe exposure levels (TSEL) of pollutants in the atmospheric air of populated places. Hygienic standards
- [9] GN 2.1.6.2328-08 Addendum to GN 2.1.6.2309-07, Tentative safe exposure levels (TSEL) of pollutants in the atmospheric air of populated places. Hygienic standards
- [10] Unified sanitary epidemiological and health standards for goods subject to sanitary and epidemiological control approved by the Customs Union Commission decision No. 299 as of May 28, 2010

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