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Group M78

USSR STATE STANDARD

LINEN AND HALF LINEN CANVAS

Technical Specifications

GOST 20712-75

This supersedes GOST 5683-61 in respect of canvas Nos. 2, 3, 4, 6 and 7 and clauses relating to material, dress and conveyor specifications and GOST 8076-61 in respect of No.6 canvas.

The present standard relates to unbleached and impregnated linen and half-linen canvas intended for making uniforms, individual protective aids for hands and other industrial articles.

(Revised edition - ISI No. 8, 1977).

1. TECHNICAL REQUIREMENTS

1.1. The following kinds of yarn are used in making canvas:

Linen yarn - conforming to GOST 10078-74 and to standards and technical documentation, approved in the established manner;

Cotton yarn - conforming to GOST 1119-70, GOST 6904-70 and GOST 15958-70;

Half-linen yarn - conforming to standards and technical documentation, approved in the established manner.

(Revised edition - ISI No. 8, 1977).

1.2. Canvas must meet the requirements shown in Table 1 in respect of physical and mechanical parameters.

Table 1

Nomenclature of canvas	Surface density, g/m ²	Yarn texture		No. of threads per 10 cm		Breaking load on cloth strips 50 x 200 mm, N (kgf)		Height of water column, by Koshel penetrometer, cm, min.
		along warp	along weft	along warp	along weft	along warp	along weft	
1. Unbleached linen canvas No. 1	435-30	165 tex	140 tex	126-2	124-4	1323 (135-14)	1078 (110-11)	-
2. Unbleached linen canvas No. 1.	590-48	200 tex	280 tex	190-4	80-2	1764 (180-18)	1176 (120-12)	-
3. Impregnated linen canvas No. 1 VP;	475-33	118 tex	118 tex	252-5	112-3	1724.8 (176-18)	833 (85-8)	15
4. Impregnated linen canvas No. SKPV	475-33	118 tex	118 tex	252-5	112-3	1724.8 (176-18)	833 (85-8)	15
5. Impregnated linen canvas No. 2 VP;	530-37	125 tex	165 tex	256-5	98-3	1666 (170-17)	1029 (105-10)	16
6. Impregnated linen canvas No. 2 SKPV;	530-37	125 tex	166 tex	256-5	98-3	1666 (170-17)	1029 (105-10)	17
7. Impregnated linen canvas No. 2 OP;	626-44	125 tex	165 tex	256-5	98-3	1666 (170-17)	1029 (105-10)	-

Contd. Table 1

Nomenclature of canvas	Surface density, g/m ²	Yarn texture		No. of threads per 10 cm		Breaking load on cloth strips 50 x 200 mm, N (kgf)		Height of water column, by Koshel penetrometer cm, min
		along warp	along weft	along warp	along weft	along warp	along weft	
8. Impregnated half-linen canvas No. 1 VP;	555-39	125 tex 92% linen 8% KV	165 tex 92% linen 8% KV	256-5	102-3	1666 (170-17)	1029 (105-10)	18
9. Impregnated linen canvas No. 1 SKPV	555-39	125 tex 92% linen 8% KV	165 tex 92% linen 8% KV	256-5	102-3	1666 (170-17)	1029 (105-10)	17
10. Impregnated half-linen canvas, No. 2 VP, SKPV	440-31	x/6 25 tex X 2KO+ 28 tex	125 tex	263-5	127-4	1764 (100-18)	1225 (125-12)	10
11. Impregnated half-linen canvas, No. 3 VP;	450-31	36 tex X 3 x/6	118 tex	258-5	112-3	1411.2 (144-14)	784 (80-8)	26
12. Impregnated half-linen canvas No. 4VP	450-31	36 tex X 3 x/6	118 tex	258-5	112-3	1411.2 (144-14)	784 (80-8)	37
13. Impregnated half-linen canvas, No. 4 VP;	462-32	50 tex X 2 x/6	118 tex	289-6	114-3	1274 (130-13)	784 (80-35)	35

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Table 1

Contd.

Nomenclature of canvas	Surface density, g/m ²	Yarn texture		No. of threads per 10 cm		Breaking load on cloth strips 50 x 200 mm, N (kgf)		Height of water column, by Koehn's penetrometer cm, min.
		along warp	along weft	along warp	along weft	along warp	along weft	
14. Impregnated half-linen canvas No. 4 VP, SKPV	355-25	29 tex X2 85% x/6 15% KV	83 tex	274-5	163-5	9111.4 (93-9)	950.6 (97-10)	16
15. Impregnated half-linen canvas, No. 3 SKPV	500-35	118 tex	165 tex	256-5	98-3	1666 (170-17)	1029 (105-10)	17
16. Impregnated half-linen canvas No. 6 VP;	540-38	x/6 60 tex	165 tex	511-10	98-3	1470 (150-15)	900 (100-10)	27
17. Impregnated half-linen canvas No. 6 SKPV;	540-38	x/6 60 tex	165 tex	619-10	98-3	1470 (150-15)	980 (100-10)	30
18. Impregnated half-linen canvas, No. 7 VP:	545-38	x/6 25 X5 tex	165 tex	253-5	98-3	1715 (175-17)	1009.4 (103-10)	28
19. Impregnated half-linen canvas No. 7 SKPV	545-38	x/6 25X5 tex	165 tex	253-5	98-3	1715 (175-17)	1009.4 (103-10)	35

Note:

1. Abbreviated alphabetic designations:

VP - improved water-resistant impregnation;

SKPV - light-stable, combination (water-resistant and mould-proof) impregnation with improved water-resistant;

OP - fire-proof impregnation;

KV - caprone fibre;

PE - polyester yarn;

~~PE~~
(kh/b) - cotton yarn.

2. If canvas has been additionally treated to reduce shrinkage and rigidity, its breaking load may be reduced by 25% from the norms shown in the Table. However, canvas cloth intended for making uniforms must have a breaking load not less than 882 N (90 kgf) along warp and 686 N (70 kgf) along weft. Breaking load for new varieties must be set not lower than these norms.

1.3. Canvas, intended for uniforms must meet the additional requirements set out in Table 2.

Table 2

Parameter	Norms
Synthetic fibre content, by weight, %, not more than	36
Tearing load N (kgf), not less than, for linen	
canvas along warp	98 (10)
along weft	58.8 (6)
for half - linen canvas along warp	68.6 (7)
along weft	58.8 (6)
Resistance to abrasion, cycles, not less than	300
Water absorption by canvas impregnated with VP	
and SKPV, %, not more than	75
Fire resistance of canvas with OP impregnation,	
seconds, not more than:	
burning	15
glowing	15

1.1. to 1.3 (Revised edition, ISI No. 8, 1977)

1.4. Canvas, which has been awarded the state quality mark in the established manner, must possess breaking load along warp and weft, water resistance, and abrasion resistance, exceeding the norms by 10%.

1.5. Canvas cloth is made in the width (for the group "special uniforms") as per GOST 9203-76 and in width of 85 ± 1.5 cm.

1.6. Canvas cloth must be woven as specified in GOST 9599-61.

1.7. Finished canvas cloth must be trimmed on both sides.

1.8. Shrinkage after washing canvas cloth, intended for special uniforms, must not exceed 5% along warp and weft.

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1.9. GOST 10776-64 defines norms for fixed compounds and parameters of aqueous extract of impregnated canvas cloth.

1.10. GOST 9591-61 defines the norms for colour stability of canvas cloth.

Varieties of canvas cloth, which have been awarded the state quality mark in the established manner, must have "extra strong" and "strong" dyeing.

1.11. Canvas cloth is graded in accordance with GOST 357-75 with the following supplement:

"The number of external appearance defects per conventional area of a piece of cloth of 30 sq. metres must not exceed five, in the case of those varieties of canvas cloth which have been awarded the state quality mark in the established manner".

1.12. Various applications of canvas cloth are:

unbleached but impregnated variety - for general purpose uniforms;

canvas cloth with water-resistant and light-stable combination impregnation - for water-resistant uniforms and

canvas cloth with fire-proof impregnation - for uniforms affording protection against sparks and naked flame.

Note: Canvas cloth with fire-proof impregnation is not to be laundered.

Uniforms made out of these varieties of canvas are recommended to be chemically washed (by dry cleaning) for longer preservation of usage and operational properties.

1.13. Canvas cloth may be made against order, with combination impregnation in tropical execution (CKIT - SKPT), at the same time retaining all the physical and mechanical parameters envisaged by this standard.

2. ACCEPTANCE RULES

2.1. GOST 20566-75 defines acceptance rules.

3. METHODS OF TESTING

3.1. GOST 3810-72 defines the procedure for selection of samples for laboratory tests.

3.2. GOST 3812-72 defines the procedure for determining the number of threads per 10 cm.

3.3. GOST 3811-72 defines the procedure for determining linear dimensions and weight.

3.4. Breaking load is determined in accordance with GOST 3813-72.

3.5. Water resistance and water absorption are determined in accordance with GOST 3816-61.

3.6. The proportion of fixed compounds in impregnated fabrics is determined in accordance with GOST 6303-72.

3.7. The proportion of salicylanilide in canvas cloth with impregnation in tropical execution is determined as described in GOST 17306-71.

3.8. GOST 5751-51 describes the method for determining colour stability.

3.9. GOST 15530-76 defines the method for determining shrinkage after wetting.

3.10. Shrinkage after laundering is determined as described in GOST 8710-58 with the following change: For every six sq.m. of cloth, the washing machine is charged with 20 litres of water, 80 grams of domestic soap (solid 60 to 72%) and 20 grams of soda ash.

3.11. Ability to withstand ironing is determined as described in GOST 15967-70.

3.12. Fire resistance is determined as described in GOST 15898-70.

3.13. Tearing load is determined as described in GOST 17922-72.

(Added, ISI No. 8, 1977).

4. MARKING, PACKING, TRANSPORT AND STORAGE

4.1. Folding, marking, and preliminary packing of canvas are done in accordance with GOST 12453-77 with the following supplement:

In the case of canvas, intended for making uniforms, the tag attached to pieces of canvas cloth must indicate the legend "for making uniforms" and the designation of the protective properties as described in GOST 12.4.015-76, after the nomenclature of the cloth and the grade no;

If the canvas has shrinkage after laundering not exceeding 5% the legend "low shrinkage finish" must be indicated on the tag;

If the canvas cloth has been awarded the state quality mark in the established manner, the tag must have artistic getup and must contain a facsimile of the state quality mark in accordance with GOST 1.9-67. Instead of the grade designation, the tags and accompanying documents must contain the state quality mark in accordance with GOST 1.9-67.

4.2. Packing and marking of canvas cloth for transport as well as

actual transport and storage are to be done in accordance with
GOST 7000-66.

4.3. GOST 14192-77 (valid from 01.01.79) defines case markings.

Updated standards

GOST 12.4.015-76 replaces GOST 12054-66
GOST 9203-76 replaces GOST 9203-66
GOST 12453-77 replaces GOST 12453-67
GOST 15530-76 replaces GOST 15530-70.

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ANNEXURE
For reference

Correlation of canvas cloth nomenclature as given in GOST 20712-75
and the corresponding grade number in price list No. 43-08 (1973 ISSUE).

Nomenclature of cloth	Grade number
Unbleached No.1 linen canvas	11101
unbleached No.2 linen canvas	11105; 11127
Impregnated No.1 linen canvas	11104; 11126
impregnated No.2 linen canvas	11110; 11119
impregnated No.1 half-linen canvas	-
impregnated No.2 half linen canvas	11227
impregnated No.3 half linen canvas	11202; 11213
impregnated No.4 half-linen canvas	11226
impregnated No.5 half-linen canvas	11223
impregnated No.3 half linen canvas	11129; 11130
impregnated No.6 half linen canvas	11201
impregnated No.7 linen canvas	11206; 11217

(Revised edition, ISI No. 8, 1977).