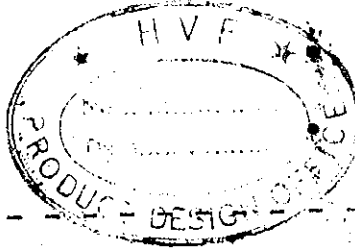


832

MASTER COPY

U S S R STATE STANDARD

WELDING STEEL WIRE



GOST 2246 - 70

Instead of

GOST 2246 - 60

Inforce from 01.01.73

The present standard pertains to cold drawn-welding steel wire made from low-carbon, alloyed and high alloy steel.

1. GRADES AND CLASSIFICATION

1.1. Wire of the following grades are manufactured;

low carbon - CB-08, CB-08A, CB-08AA, CB-08ГA, CB-10ГA and CB-10Г2;

alloyed - CB-08ГC, CB-12ГC, CB-08Г2C, CB-10ГH, CB-08ГCMT, CB-15ГCTЮЦA, (ЭП-439), CB-20ГCTЮA, CB-18XГC, CB-10HMA, CB-08MX, CB-08XM, CB-18XMA, CB-08XHM, CB-08XMΦA, CB-10XMΦT, CB-08XГ2C, CB-08XГCMA, CB-10XГ2CMA, CB-08XГCMΦA, CB-04X2MA, CB-13X2MΦT, CB-08X3Г2CM, CB-08XMHΦA, CB-08XH2M, CM-10XH2ГMT (ЭП-984) CB-08XH2ГMTA (ЭП-111), CB-08XH2ГMЮ, CB-08XH2Г2CMЮ, CB-06H3, CB-10X5M;

high alloy ; - CB-12x11HMΦ, CB-10x11HBMΦ, CB-12x13, CB-20x13, CB-06x14, CB-08x14ГHT, CB-10x17T, CB-13x25T, CB-01x19H9, CB-04x19H9, CB-08x16H8M2 (ЭП-377), CB-08x18H8Г2Б (ЭП-307), CB-07x18H9TЮ, CB-06x19H9T, CB-04x19H9C2, CB-08x19H9Φ2C2, CB-05x19H9Φ3C2, CB-07x19H10Б, CB-08x19H10Г2Б (ЭП-898) CB-06x19H10M3T, CB-08x19H10M3Б (ЭП-902) CB-04x19H11M3,

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

GOST 2246-70

SHEET

2

CB-05x20H9φБС (ЭИ-649)  
 1 CB-05x20H9 φбл (ЭИ-649), CB-06x20H11M3T Б (ЭП-89), CB-10x20H15,  
 CB-07x25H12Г 2T (ЭП-75), CB-06x25H12T Ю (ЭП-87), CB-07x25H13,  
 CB-08x25H13Б Т Ю (ЭП-389), CB-13x25H18, CB-08x20H9 Г 7Т,  
 CB-08<sup>Х</sup>21H10 Г 6, CB-30x25H16 Г 7, CB-10x16H25AM6, CB-09x16H25M6A φ  
 (ЭИ-981A) CB-01x23H28M3D3T (ЭП-516), CB-30x15H35ББ 3Т,  
 CB-08H50 and CB-06x15H60M15 (ЭП-367).

(Amended edition - "Indicator of standards" No.4 1973).

1.2. Depending upon the purpose, wire is divided into the following;

for welding (weld on)

for manufacturing of electrodes (conventional designation - Э)

Purpose of the wire should be mentioned in the order.

1.3. Depending on the surface type, low-carbon and alloyed wire is divided into:-

non-copper plated;

copper-plated - (0).

Special requirements for copper plating of the wire surface (including the total content of copper) are specified in the specifications, approved in the established order.

Necessity for the supply of wire with copper-plated surface should be mentioned in the order.

(Amended edition - "Indicator of standards" No.4-1973).

1.4. As per the request by the user, wire should be made from steel, melted by electric slag (М) or vacuum-arch (BD) remelting or in vacuum induction furnaces (B\). In this case, additional requirements for the metal of wire (making the norms on the

ALL SHEET	No. OF DOCUMENT	SIGNATURE	DATE

content of harmful and foreign inclusions more rigid; introduction of limits on the content of gases, non-metallic inclusions and so on) are established upon agreement between the supplier and the customer.

## 2. DIMENSIONS

2.1. Diameter of wire and limit deviations for them should correspond to those specified in Table 1.

Table 1

Nominal diameter of wire	Limit deviations for wire, meant for;		Nominal diameter of wire	Limit deviations for wire, meant for;	
	for welding (welding-on)	for manufacturing electrodes.		for welding (welding-on)	for manufacturing electrodes.
0.3	-0.05		1.6		
0.5	-0.06	-	2.0	-0.12	-0.06
0.8	-0.07				
1.0					
1.2	-0.09	-	2.5	-0.12	-0.09
1.4			3.0		
4.0					
5.0	-0.16	-0.12			
6.0			10.0	-0.24	-
			12.0		
8.0	-0.20	-0.16			

APP	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	

GOST 2246-70

2.2. For high alloy wire, subjected to etching, the limit deviations for the diameter may be by 50% more than those specified in Table 1.

2.3. Ovality of wire should not exceed half the limit deviations for the diameter.

Example of conventional designations;

Welding wire with a diameter of 3 mm, of grade CB-08A, meant for welding (welding-on) having a non-copper plated surface ;

Wire 3 CB - 08A GOST 2246-70.

Welding wire with a diameter of 4 mm, of grade CB-04x19H9, used for manufacturing of electrodes ;

Wire 4 CB-04x19H9 - ) GOST 2246-70.

Welding wire with a diameter of 2 mm, of grade CB-30x25H16 $\nabla$ 7, intended for welding (welding-on), made from steel, melted by electric slag re-melting;

Wire 2 CB-30x25H16 $\nabla$ 7 - GOST 2246-70.

Welding wire with a diameter of 1.6 mm, of grade CB-08 $\nabla$ 2C, meant for welding (welding-on) having a copper-plated surface ;

Wire 1.6 CB - 08 $\nabla$ 2C - 0. GOST 2246-70.

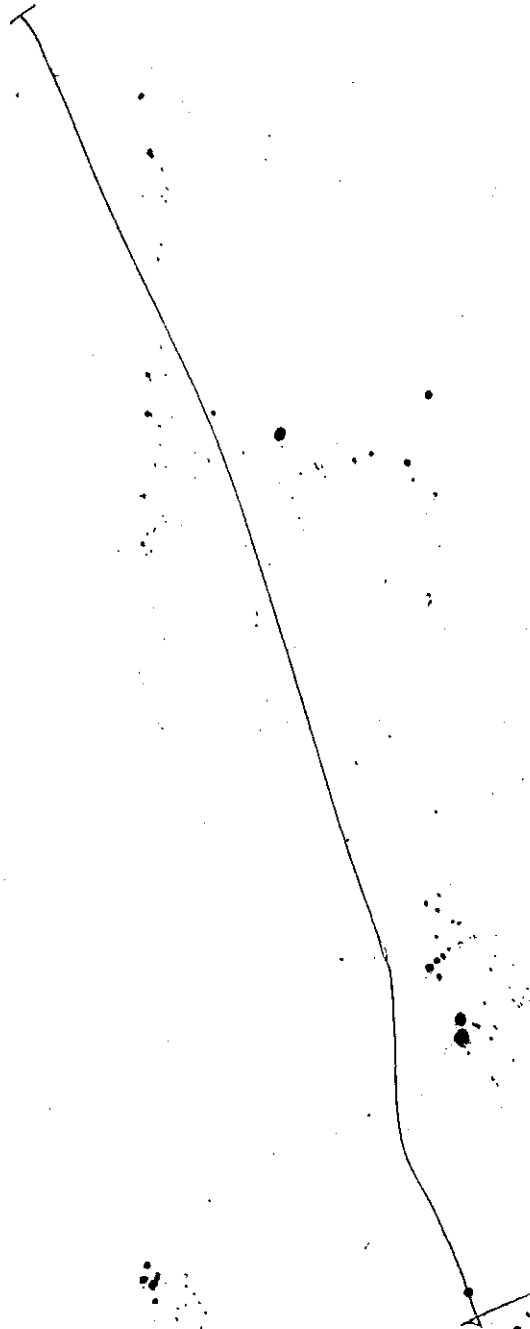
Welding wire with a diameter of 2.5 mm, of grade CB-08x $\nabla$ CM $\Phi$ A, meant for manufacture of electrodes, made from steel, melted in a vacuum, induction furnace, having a copper plated surface ;

Wire 2.5 CB-08x $\nabla$ CM $\Phi$ A-B $\nabla$ - $\nabla$ -0 GOST 2246-70.

									SHEET
									5
APP	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 2246-70				

3. TECHNICAL REQUIREMENTS

3.1. Wire is manufactured from steel, chemical composition of which is given in Table 2.



					GOST 2246-70	SHEET
Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE		6

Table 2

Chemical Composition, %

Grade of wire	Carbon	Silicon	Manganese	Chromium	Nickel	Molybdenum	Titanium	Sulphur not more than	Phosphorous not more than	Other elements
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Low Carbon Wire										
CB-08	Not more than 0.10	Not more than 0.03	0.35-0.60	Not more than 0.15	Not more than 0.30	-	-	0,040	0,040	Aluminium not more than 0.01
CB-08A	Not more than 0.10	Not more than 0.03	0.35-0.60	Not more than 0.12	Not more than 0.25	-	-	0,030	0,030	Aluminium not more than 0.01
CB-08AA	Not more than 0.10	Not more than 0.03	0.35-0.60	Not more than 0.10	Not more than 0.25	-	-	0,020	0,020	Aluminium not more than 0.01
CB-08 ΓA	Not more than 0.10	Not more than 0.03	0.80-1.10	Not more than 0.10	Not more than 0.25	-	-	0,025	0,030	-
CB-10 ΓA	Not more than 0.12	Not more than 0.03	1.10-1.40	Not more than 0.20	Not more than 0.30	-	-	0,025	0,030	-
CB-10 Γ2	Not more than 0.12	Not more than 0.03	1.50-1.90	Not more than 0.20	Not more than 0.30	-	-	0,030	0,030	-
Alloyed wire										
CB-08 ΓC	Not more than 0.10	0.60-0.85	1.40-1.70	Not more than 0.20	Not more than 0.25	-	-	0,025	0,030	-
CB-12 ΓC	Not more than 0.14	0.60-0.90	0.80-1.10	Not more than 0.20	Not more than 0.20	-	-	0,025	0,030	-
CB-08 Γ2C	0,05-0,11	0,70-0,95	1,80-2,10	Not more than 0,20	Not more than 0,5	-	-	0,025	0,030	-
CB-10 ΓH	Not more than 0.12	0.15-0.35	0.90-1.20	Not more than 0.20	0.90-1.0	-	-	0.025	0.030	-
CB-08 ΓCMT	0.06-0.11	0.40-0.70	1.00-1.30	Not more than 0.30	Not more than 0.30	0.20-0.40	0.05-0,12	0.025	0.030	-
CB-15 ΓCTHUA	0.12-0.18	0.45-0.85	0.60-1.00	Not more than 0.30	Not more than 0.30	-	0.05-0.20	0.025	0.025	Aluminium 0.20-0.50; Zirconium 0.05-0.15; Cerium not less than 0.04
CB-20 ΓCTHUA <del>CB-20 ΓCTHUA</del>	0,17-0,23	0,60-0,90	0,90-1,20	Not more than 0,30	Not more than 0,30	-	0,10-0,20	0,025	0,025	Aluminium 0.20-0.50; Cerium 0.30-0.45
CB-18X ΓC	0.15-0.22	0.90-1.20	0.80-1.10	0.80-1.10	Not more than 0.30	-	-	0.025	0.030	-
CB-10HMA	0.07-0.12	0.12-0.35	0.40-0.70	Not more than 0.20	1.00-1.1	0.40-0.55	-	0.025	0.025	-
CB-08MX	0.06-0.10	0.12-0.30	0.35-0.60	0.45-0.65	Not more than 0.30	0.40-0.60	-	0.025	0.030	-