

# GOST 8733-74, GOST 8734-75

## Seamless cold-formed steel tubes

### Chemical composition

Steel Grade	Elements content, %					
	C, %	Si, %	Mn, %	Cr, % not more than	Mo	Ni
10	0.07-0.14	0.17-0.37	0.35-0.65	0.15		
20	0.17-0.24	0.17-0.37	0.35-0.65	0.25		
35	0.32-0.40	0.17-0.37	0.50-0.80	0.25		
45	0.42-0.50	0.17-0.37	0.50-0.80	0.25		
10G2	0.07-0.15	0.17-0.37	1.20-1.60	-		
20G	0.17-0.24	0.17-0.37	0.70-1.00	-		
50G	0.48-0.56	0.17-0.37	0.70-1.00	-		
20H	0.17-0.23	0.17-0.37	0.50-0.80	0.70-1.00		
40H	0.36-0.44	0.17-0.37	0.50-0.80	0.80-1.10		
30HGSA	0.28-0.34	0.90-1.20	0.80-1.10	0.80-1.10		
15HM	0.11-0.18	0.17-0.37	0.40-0.70	0.80-1.10		
30HMA	0.26-0.34	0.17-0.37	0.40-0.70	0.80-1.10	0.15-0.25	
12HN2	0.09-0.16	0.17-0.37	0.30-0.60	0.60-0.90		1.50-1.90
09G2S	≤0.12	0.50-0.80	1.30-1.70	≤0.30		

### Mechanical properties

Grade designation	Tensile strength, $\sigma_s$ , kgs/mm <sup>2</sup> (MPa)	Yield strength, $\sigma_s$ , kgs/mm <sup>2</sup> (MPa)	Elongation, $\delta_s$ , %	Brinell hardness (wall thickness 10 mm)	
	Not less than			Imprint diameter, mm, not less than	Hardness number HB, not more than
10	36 (353)	22 (216)	24	5,1	137
20	42 (412)	25 (245)	21	4,8	156
35	52 (510)	30 (294)	17	4,4	187
45	60 (588)	33 (323)	14	4,2	207
10G2	48 (470)	27 (265)	21	4,3	197
20G	46 (450)	28 (275)	24	4,5	179
50G	66 (650)	40 (390)	13	4,0	229
20H	44 (431)	29 (284)	16	4,5	179
40H	67 (657)	36 (352)	9	3,7	269
30HGSA	70 (686)	41 (402)	11	4,0	229
15HM	44 (431)	23 (226)	21	4,5	179
30HMA	60 (588)	40 (392)	13	4,0	229
12HN2	55 (539)	40 (392)	14	4,2	207

Grade designation	Tensile strength, $\sigma_s$ , MPa	Yield strength, $\sigma_s$ , MPa	Percent elongation, $\delta_s$ , %	Impact work, KCU J/sm <sup>2</sup>			
				Longitudinal direction			
				t=20°C	t=-40°C	t=-70°C	t=-60°C
	Not less than						
09F2C	450	325	21	59	39	29	29

	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	11	12	13	14	15	16	
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## Dimensional tolerances

Outside diameter, mm	Outside diameter permissible deviation	Wall thickness	Wall thickness permissible deviation
	Enhanced accuracy		Enhanced accuracy
30 - 50	± 0.4 mm	Up to 5 mm	± 10 %
≥ 50	± 0.8%	Above 5 mm	± 8 %

## Lengths

Pipes are supplied with lengths according to standard requirements.  
Any lengths different from the standard ones are subject to additional negotiations.

## Protection

Pipes are supplied:

- black and bare
- external varnished with black or clear lacquer
- oiled

Upon request pipes ends are protected with plastic caps.

## Marking

Pipes are supplied with marking according to standards and customer requests.  
Marking is painted and/or hard stenciled on pipe ends. The same data, as well as additional information according to customer's request, are indicated on the bundle tags.

## Certification

Pipes are supplied with 3.1. inspection certificate, in conformity with EN 10204.