

The invention relates to the ferrous metallurgy, and particularly to stainless steels of austenite class. The stainless steel contains, % by weight: carbon – 0.02-0.08; chrome – 16.5-20.0; nickel – 9.1-12.1; molybdenum – 2.0-3.0; silicon – 0.25-1.0; manganese – 1.0-2.0; sulphur – 0.0075 – 0.035; nitrogen – 0.06-0.11; calcium – 0.0015 – 0.0050; iron is the rest. At that nickel content is (% by weight) not less than that defined from the expression $Ni=0.50(Cr + 2,5 Mo) - 15 N$, where Cr, Mo, N – content of chrome, molybdenum and nitrogen, and ratio of calcium content to sulphur is in the range of 0.10-0.20.