

Westgate

301

(UNS S30100) W. Nr. 1.4310

Chemical composition	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N
% Present (Max)	0.15	1.00	2.00	0.045	0.003	16.0-18.0	6.0-8.0	-	-	0.1

Alloy 301 is the most susceptible to cold deformation strengthening among conventional austenitic stainless steels. Its work hardening rate is extremely high, with each increase in the amount of cold work, the tensile strength and yield strength will increase significantly.

The response to work hardening is particularly important for structural parts, including angle steel and channel sections, which are expected to have additional strength and stiffness after manufacture. On the other hand, for deep drawing applications, lower work hardening rates are generally preferred and can be obtained in austenitic alloys with higher nickel content (especially [types 304](#), [304L](#), and [305](#)).

Type 301 SS has good corrosion resistance under atmospheric conditions, but it has poor corrosion resistance in reducing media, and chemical media such as acids, alkalis and salts, so it is not recommended for harsh corrosion environments. 301 steel is mainly used in the cold working state to withstand higher loads, but also hopes to reduce the weight of equipment and corrosion-resistant parts.

Note: Values are in accordance with EN 10088 specifications. Actual mill certs available upon request.



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