

ASTM A312/A312M 05a, ASTM A269 04 American Standard (Stainless Steel Tube)

ASTM A312/A312M 05a - Standard of American Material and Testing Association

ASTM A269 04 - Standard of American Material and Testing Association

Application:

ASTM A269 04 is applied to the environment of common corrosion assistance and low temperature or high temperature;

ASTN A312/A312M 05a is applied to the environment with high temperature and common corrosion assistance.

Grades of Main Steel Pipe:

TP304, TP304L, TP321, TP316, TP316L, TP347, TP347H

Chemical Composition

Steel Grade	Chemical Composition %							
	C	Mn	P	S	Si	Cr	Ni	Mo
TP304	0.08	2.00	0.045	0.030	0.75	18.0-20.0	8.0-11.0	/
TP304L	0.035	2.00	0.045	0.030	0.75	18.0-20.0	8.0-13.0	/
TP304H	0.04-0.10	2.00	0.045	0.030	0.75	18.0-20.0	8.0-11.0	/
TP316	0.08	2.00	0.045	0.030	0.75	16.0-18.0	11.0-14.0	/
TP316L	0.035	2.00	0.045	0.030	0.75	16.0-18.0	10.0-14.0	/
TP316H	0.04-0.10	2.00	0.045	0.030	0.75	16.0-18.0	11.0-14.0	/
TP321	0.08	2.00	0.045	0.030	0.75	17.0-19.0	9.0-12.0	/
TP347	0.08	2.00	0.040	0.030	0.75	17.0-20.0	9.0-13.0	/
TP347H	0.04-0.10	2.00	0.040	0.030	0.75	17.0-20.0	9.0-13.0	/

Mechanical Properties

Steel Grade	Mechanical Properties
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	Tensile Strength (Mpa)	Yield Strength (Mpa)	Elongation (%)
TP304	515	205	35
TP304L	485	170	35
TP304H	515	205	35
TP316	515	205	35
TP316L	485	170	35
TP316H	515	205	35
TP321	515	205	35
TP347	515	205	35
TP347H	515	205	35

Remarks

HR: hot rolled	CW: cold worked	SR: stress relieved
A: annealed	N: normalized	HF