

17-7PH

17-7PH a chromium-nickel-aluminum precipitation hardening stainless steel used for applications requiring high strength and a moderate level of corrosion resistance. It has found application in aerospace and many spring type applications requiring high strength. High strength is maintained to approx. 430°C.

Chemical Composition, %

element	Cr	Ni	Fe	Al	C	Mn	Si	P	S
min.	16.00	6.50	bal.	0.75	0.090	1.00	1.00	0.040	0.030
max.	18.00	7.70		1.50					

Chemical Composition according to ASTM. Some compositional limits of other specifications may vary slightly.

Designation and standards

National Standards	Material designation	Chemical composition	Forgings	Rod and bar	Plate and sheet	Strip	Wire
ASTM ASME SAE	UNS S17700 AISI 631	A959 SA959	A705 SA705 A579 SA579 AMS5644	A564 SA564 AMS5644	A693 SA693 AMS5528 AMS5529	A693 SA693 AMS5528 AMS5529	A313 SA313 AMS5678
DIN	1.4568 X7CrNiAl17-7	DIN 10088-1		DIN 10088-3	DIN 10088-2	DIN 10151	DIN 10270-3
GB/T	07Cr17Ni7Al 0Cr17Ni7Al S51770	GB/T 20878		GB/T 1220 GB/T 1221 GB/T 4356 GJB 2294 GJB 8268	GB/T 4237 GB/T 4238 GB/T 3280 GJB 2295A	GB/T 4237 GB/T 4238 GB/T 3280 GJB 3321 YB/T 5310	GJB 3320

Density 7.81g/cm³

Corrosion resistance

- corrosion resistance comparable to stainless type 304 in most media
- good resistance to fresh water and industrial atmospheres, mild chemical and oxidizing environments
- unsuitable in salt water or reducing environments

Applications

Typical applications are:

- variety of springs and washers
- chemical processing equipment
- heat exchangers
- power boilers
- superheater tubes
- components used in high-strength/high-temperature conditions

You could send email to sales@huishih.com for more information.

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