



湖南富顺金属材料有限公司
HUNAN FUSHUN METAL CO., LTD.
Technical Datasheet

Add: No. 2014, Floor 20, Building C1,
Yongsheng Commercial Plaza, 222 Labor
East Road, Yuhua District, Changsha
City, Hunan, China
Tel: +86-731-89903933
Fax: +86-731-89853933
Web: <http://www.fushunspecialsteel.com/>
Email: info@fushunspecialsteel.com

09Cr17Ni5Mo3N UNS S35000 633 Precipitation-hardening Stainless Steel

633 is a precipitation-hardened stainless steel that can be heat treated at low temperatures to obtain different grades of strength as needed for applications requiring high strength and excellent weldability and corrosion resistance.

Standard and Grade:

CN	GB/T 20878-2007	09Cr17Ni5Mo3N S51750
US	ASTM A693-2003	S35000, 633
EN	EN 10088-1:2005	(1.4457)

Chemical Component

C	0.07~0.11	Cr	16.0~17.0	Ni	4.00~5.00
Si	≤0.50	P	≤0.040	Mo	2.50~3.20
Mn	0.50~1.25	S	≤0.030	N	0.07~0.13

Material characteristics

The corrosion resistance is better than other hardenable martensitic stainless steels and is comparable to 316 type stainless steels in most media.

②Strength. After heat treatment according to the national standard specifications, the hardness of $\geq 36\text{HRC}$ or $\geq 42\text{HRC}$ can be obtained.

③Easier to weld than other precipitation-hardenable stainless steels, which can be welded by conventional inert gas methods.

Application

633 is typically used in applications below 1000°F (537°C) where strength and good corrosion



HUNAN FUSHUN METAL CO., LTD.

Tel: 86-0731-89903933

Fax: +86-0731-89853933

E-mail: info@fushunspecialsteel.com

Website: www.fushunspecialsteel.com

Add: No. 2014, Floor 20, Building C1, Yongsheng Commercial Plaza, 222 Labor East Road, Yuhua District, Changsha City, Hunan, China



25 years one-stop service
experience for our customers



湖南富顺金属材料有限公司
HUNAN FUSHUN METAL CO., LTD.

Technical Datasheet

Add: No. 2014, Floor 20, Building C1,
Yongsheng Commercial Plaza, 222 Labor
East Road, Yuhua District, Changsha
City, Hunan, China

Tel: +86-731-89903933

Fax: +86-731-89853933

Web: <http://www.fushunspecialsteel.com/>

Email: info@fushunspecialsteel.com

resistance are required, such as for gas turbine compressor components (blades, discs, rotors and shafts) and similar components requiring high strength at room and medium temperatures; precision seals, couplings for semiconductor processing equipment and high vacuum systems; and edge-welded bellows applications requiring high strength in aerospace.



HUNAN FUSHUN METAL CO., LTD.

Tel: 86-0731-89903933

Fax: +86-0731-89853933

E-mail: info@fushunspecialsteel.com

Website: www.fushunspecialsteel.com

Add: No. 2014, Floor 20, Building C1, Yongsheng Commercial Plaza, 222 Labor East Road,
Yuhua District, Changsha City, Hunan, China



25 years one-stop service
experience for our customers