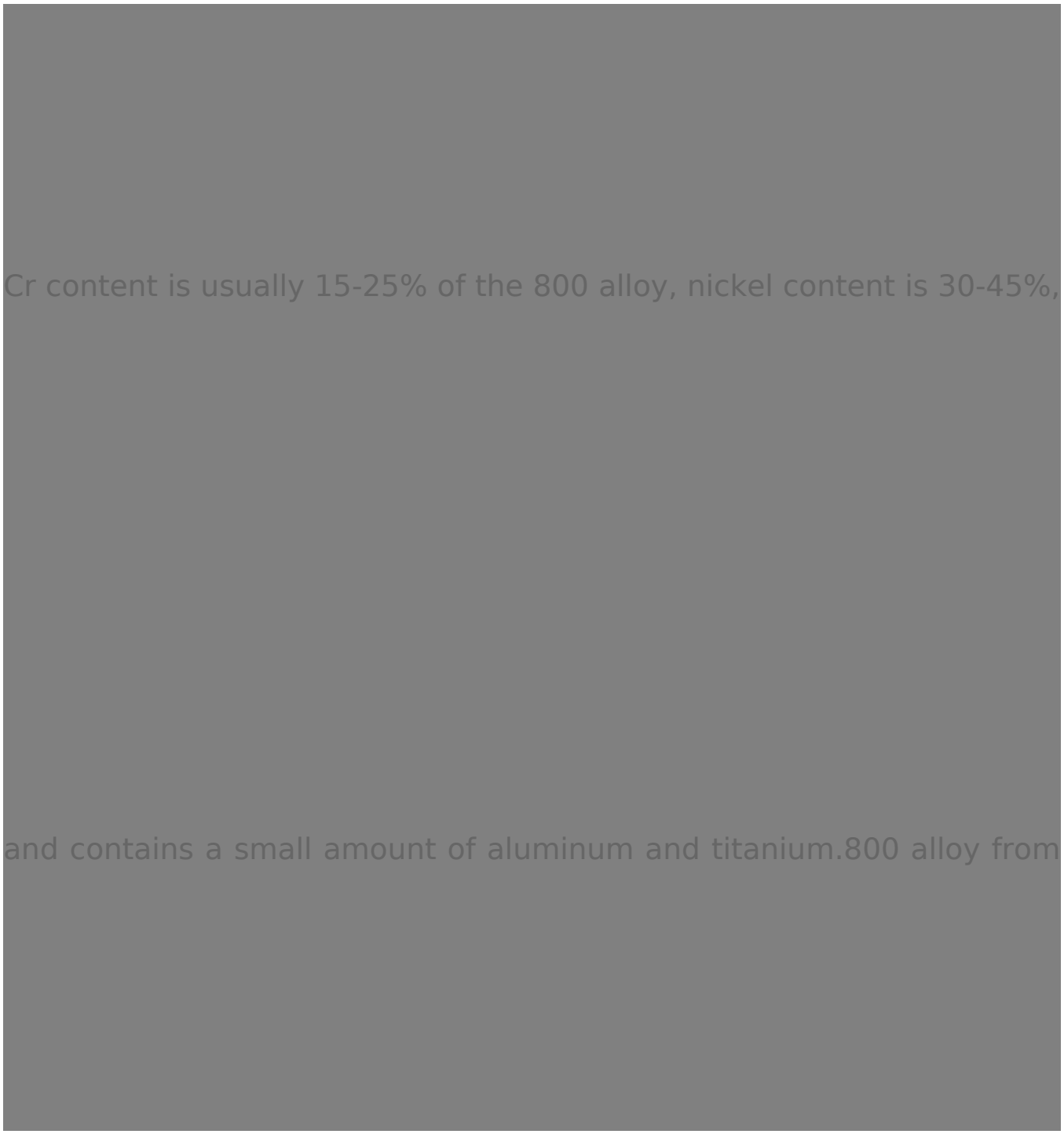
This page is mainly introduced the Incoloy 800 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Incoloy 800,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.

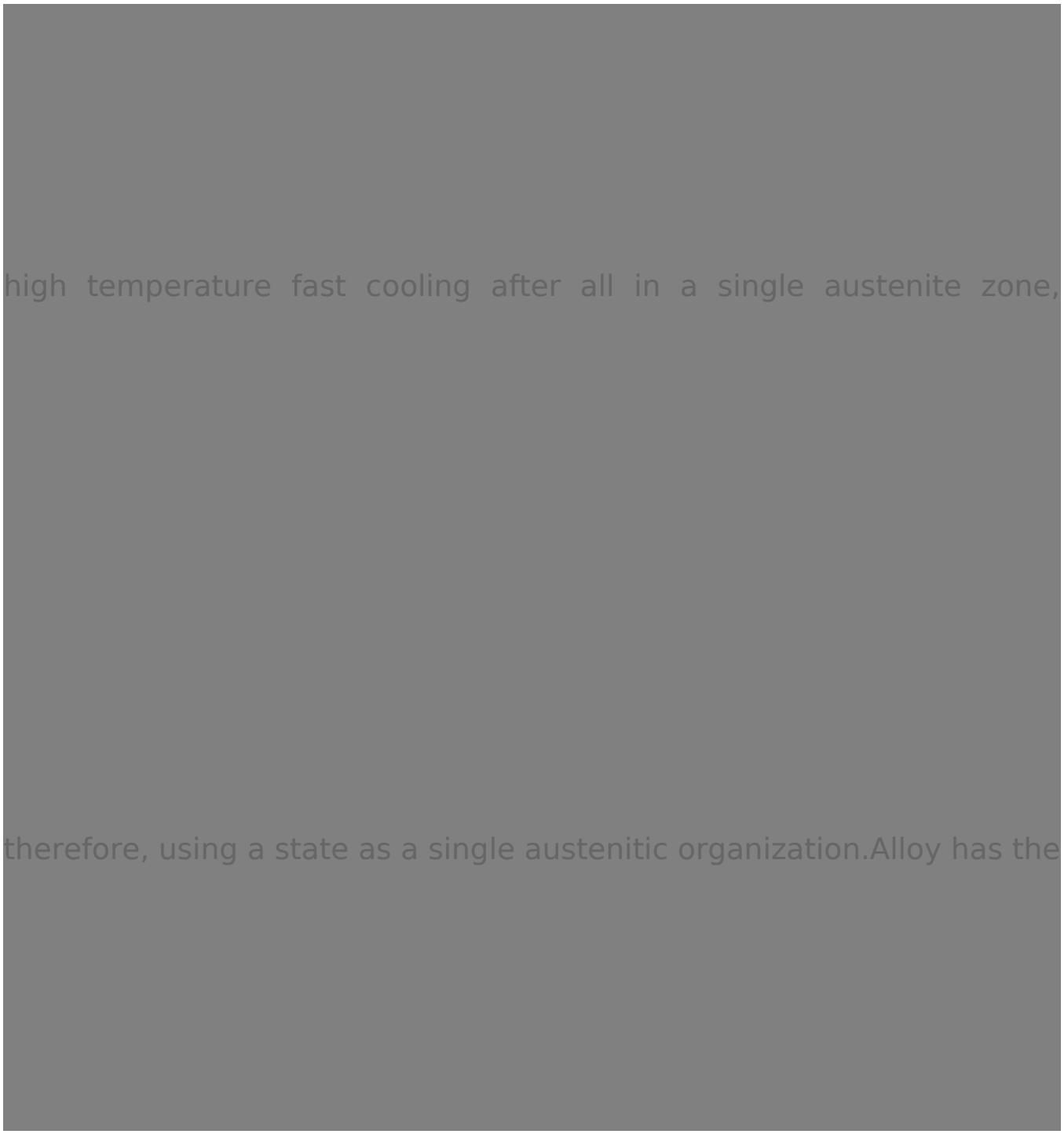
Datasheet for Steel Grades Superalloys Incoloy 800

Incoloy 800 Standard Number:		
ITEM	Standard Number	Descriptions
1	ASTM B409	Stainless steel hot rolled steel plate
2	ASTM B514	Stainless steel cold rolled steel sheet
3	ASTM B515	Stainless steel/acid steel cold rolling belt

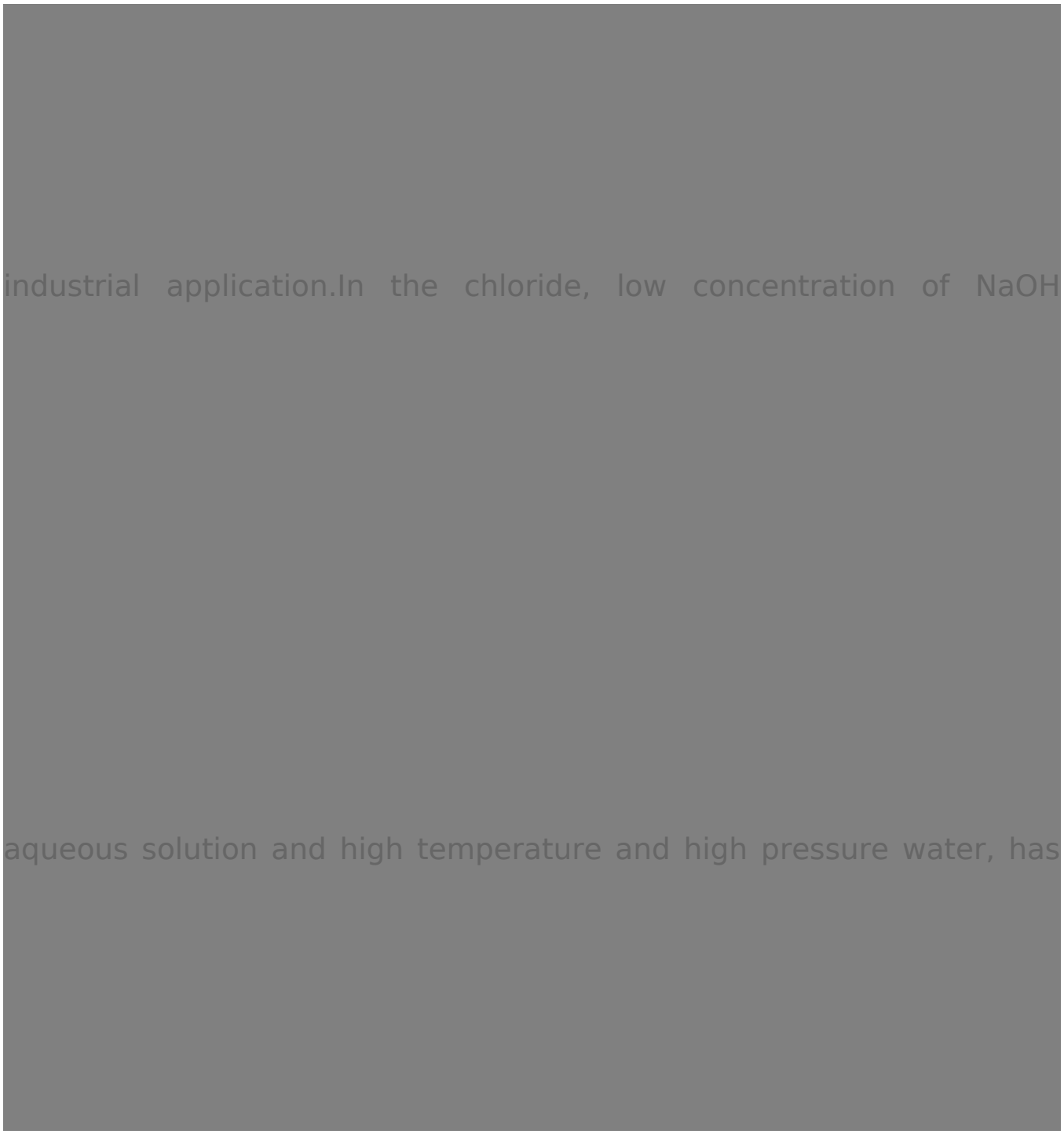
Incoloy 800 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.10
Si		1.00
Mn		1.50
P		0.030
S		0.015
Cr	19.00	23.00
Ni	30.00	35.00
Fe		Bal

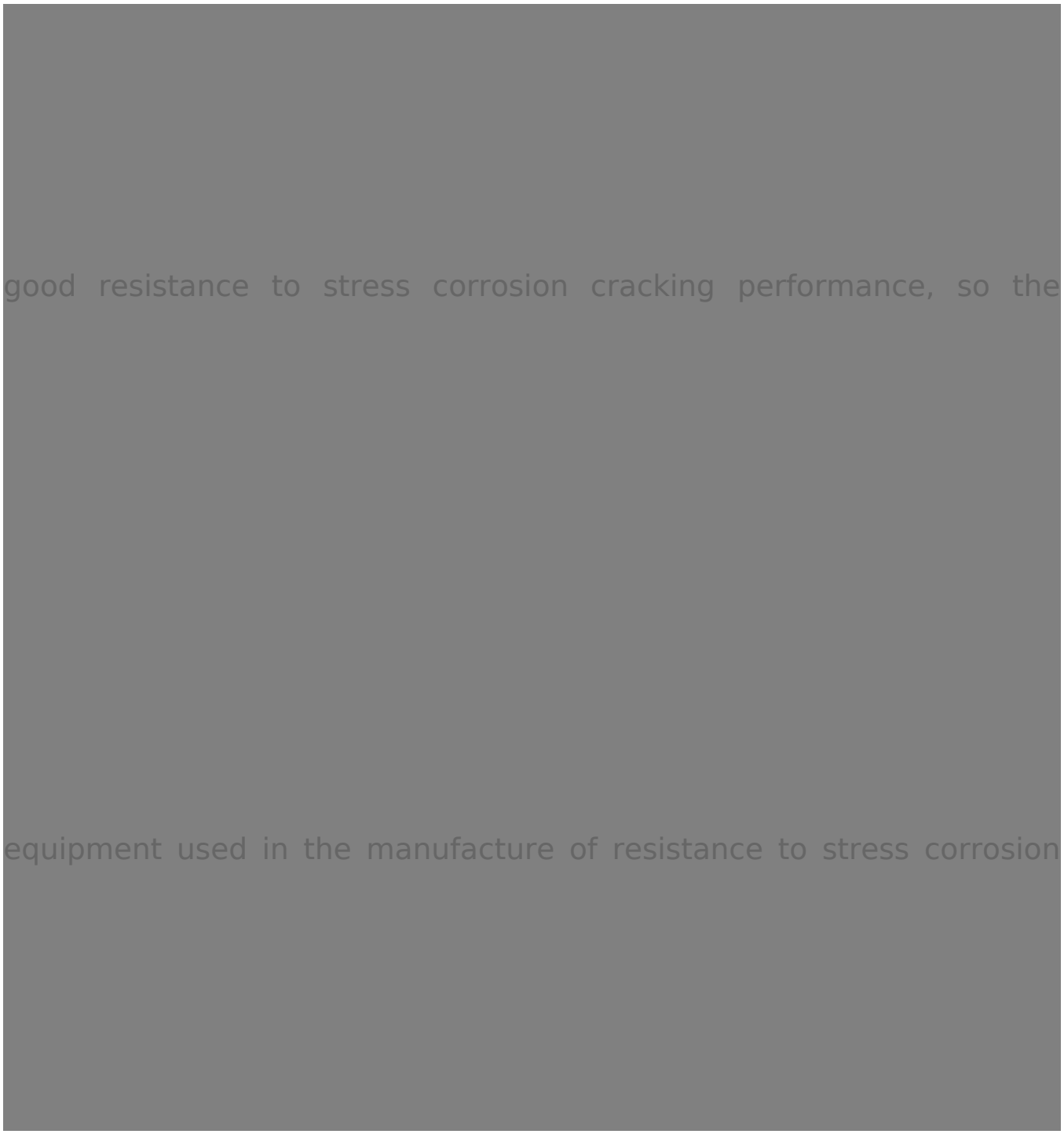
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

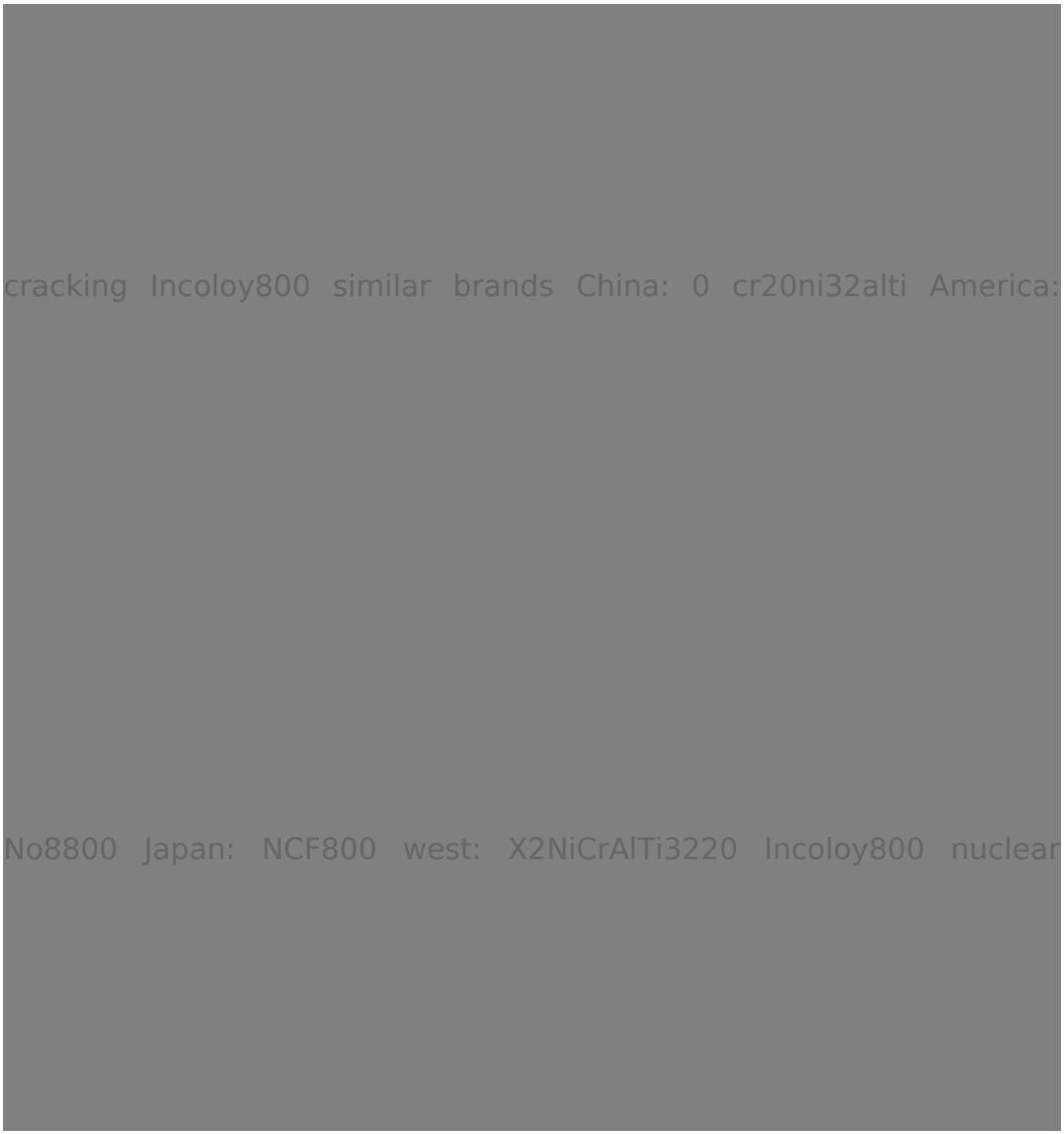

Cr content is usually 15-25% of the 800 alloy, nickel content is 30-45%,
and contains a small amount of aluminum and titanium.800 alloy from

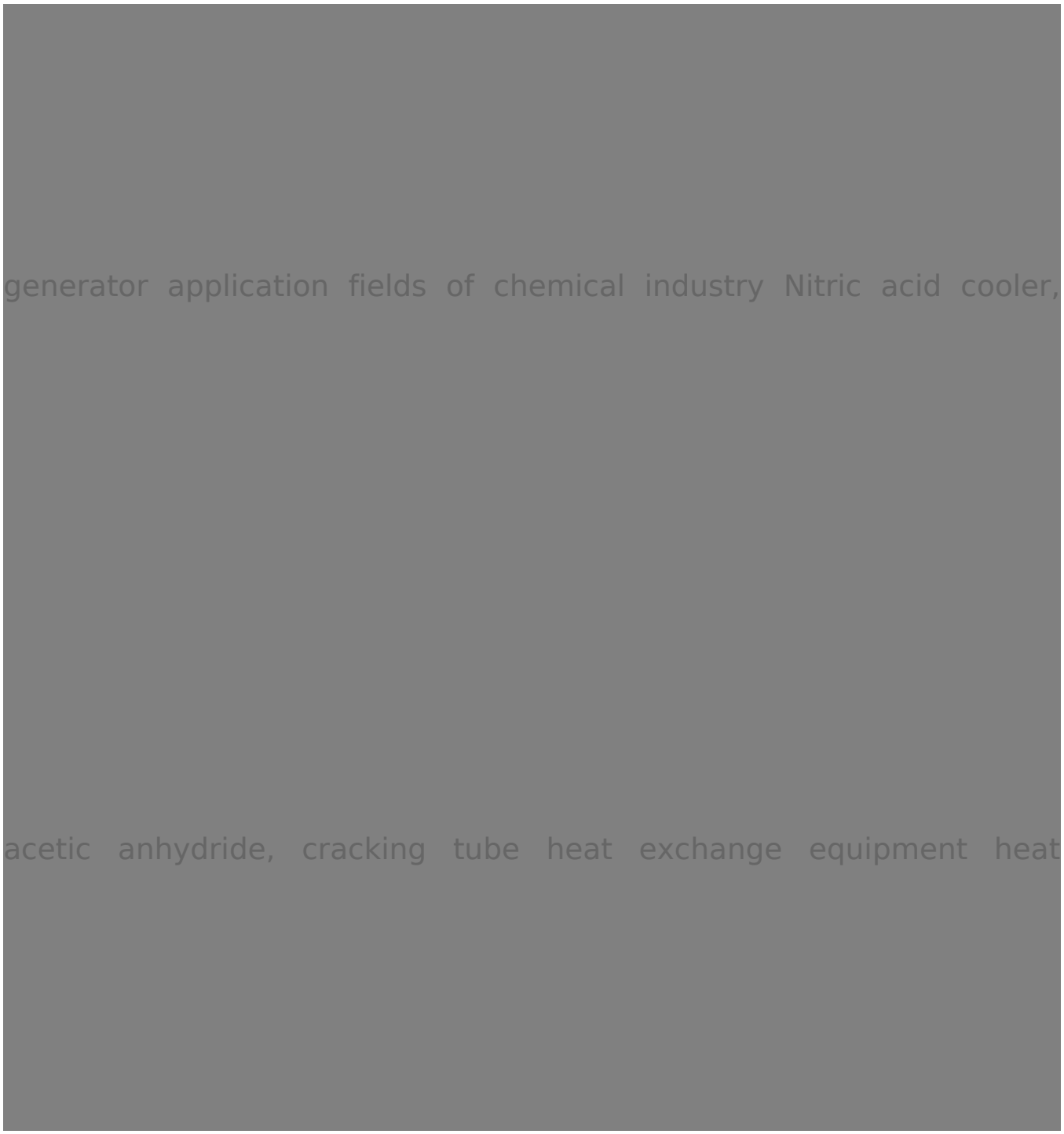

high temperature fast cooling after all in a single austenite zone,
therefore, using a state as a single austenitic organization.Alloy has the

high chromium content and plenty of nickel content, so a higher
resistance to high temperature corrosion performance, more in


industrial application.In the chloride, low concentration of NaOH
aqueous solution and high temperature and high pressure water, has


good resistance to stress corrosion cracking performance, so the
equipment used in the manufacture of resistance to stress corrosion


cracking Incoloy800 similar brands China: 0 cr20ni32alti America:
No8800 Japan: NCF800 west: X2NiCrAlTi3220 Incoloy800 nuclear


generator application fields of chemical industry Nitric acid cooler,
acetic anhydride, cracking tube heat exchange equipment heat

exchange

Incoloy 800 Physical Properties

Tensile strength	115-234	σb/MPa
Yield Strength	23	σ 0.2 ≥/MPa
Elongation	65	δ5≥ (%)
ψ	-	ψ≥ (%)
Akv	-	Akv≥/J
HBS	123-321	-
HRC	30	-

Incoloy 800 Mechanical Properties

Tensile strength	231-231	σb/MPa
Yield Strength	154	σ 0.2 ≥/MPa
Elongation	56	δ5≥(%)
ψ	-	ψ≥(%)
Akv	-	Akv≥/J
HBS	235-268	-
HRC	30	-

Incoloy 800 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

Incoloy 800 Range of products

Product type	Products	Dimension	Processes	Deliver Status

Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED

We can produce Superalloys the specifications follows: