

Martensitic high-corrosion-resistant stainless steel

ASK-3900

ASK-3900 combines hardness comparable to SUS440C with corrosion resistance equivalent to SUS630.

It is an ideal new stainless steel for precision mechanical components and medical devices where both strength and corrosion resistance are required.

Biological safety testing completed

[GLP standards]

(Cytotoxicity test / Skin sensitization test / Intracutaneous reactivity test)

High-
Strength

The addition of C and N achieves hardness comparable to SUS440C.HRC58 can be achieved (with sub-zero treatment).

ASK-3900
Product
Features

High
Corrosion
Resistance

The addition of Cr, Mo, and N achieves corrosion resistance equivalent to SUS630, making surface treatment unnecessary.

◇ Salt Spray Test



ASK-3900



SUS440C

Test
conditions
(JIS Z 2371)

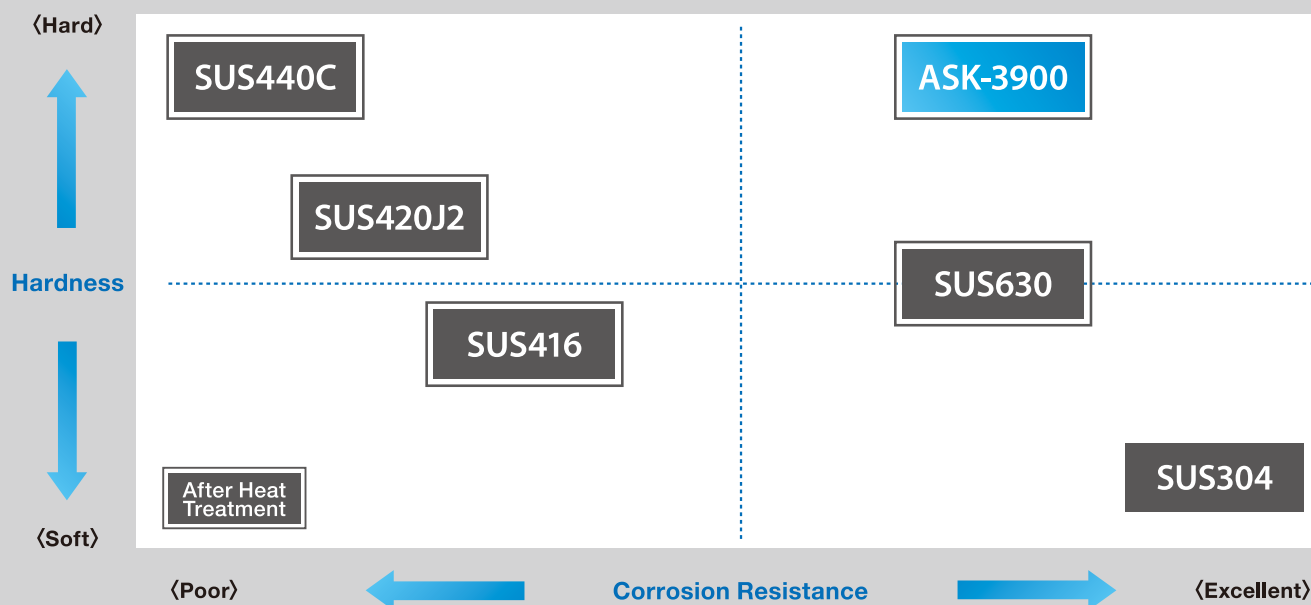
5% NaCl • 35°C • 96h
※Heat Treatment Conditions
HQ : 1050°C×0.5h/OC
HSZ : -80°C×1h
HT : 180°C×1h/AC

◇ Chemical Composition / Physical Properties

(wt%)								
C	Si	Mn	P	S	Ni	Cr	Mo	N
0.35-0.45	≤1.00	≤1.00	≤0.04	≤0.03	≤0.60	14.50-16.50	1.00-3.00	0.10-0.20

Basic Mass g/cm ³	Young's Modulus KN/mm ²	Linear Expansion Coefficient(average) 10 ⁻⁶ ·°C	Thermal Conductivity W/m·°C	Specific Heat Capacity J/g·°C	Electrical Resistivity Ω·m×10 ⁻⁸
Normal temp.	Normal temp.	0-100°C	20-100°C	0-100°C	Normal temp.
7.6	222	10.3	23.8	0.48	55

◇ Hardness and Corrosion Resistance

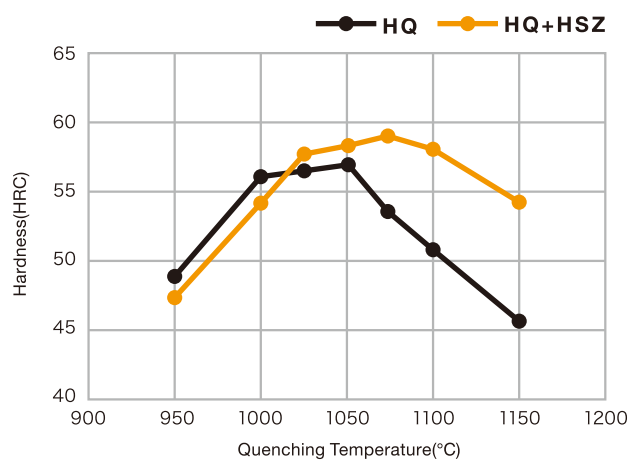


◇ Heat Treatment Conditions

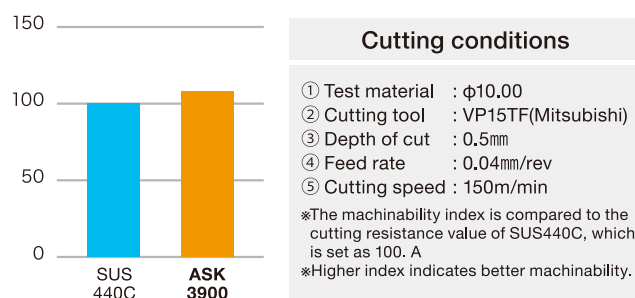
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◇ Machinability Index



◇ Cold Workability

