

# Silvia and Silvia F

## ASADA CORPORATION

<http://www.asada-metal.com/>

Asada Corporation is a specialized trading company  
for wires and strips such as steels, wires, piano wires,  
hard drawn steel wires, stainless steel wires etc.

## (2) Feature

Table 1-2 Wire Feature

Designation	Coating	Finish Symbol	Applicable Wire Diameter mm	Feature
NAS SILVIA	Nickel coated	H NF	over 0.50 to 5.00, incl.	Provided with good lubricating performance on the wire surface and suitable for automatic coiling of those with intermediate and larger diameters. Nickel plating also contributes to prevention of temper color.
		H UBNS	over 0.080 to 0.50, excl.	Very good surface finish and favorable lubricating performance. Suitable for automatic coiling.
NAS SILVIA F		H NF	over 0.18 to 0.50, excl.	Provided with very good lubricating performance and suitable for formation of precision springs with fine wires. Also applicable for SG as well as general automatic coiling.
NAS CAPITAL		H NP	over 0.18 to 0.80, incl.	Provided with good surface finish and most suitable for SG due to no possibility of clogging. Wire diameter and out-of-round limited to 1/3 of JIS values.
CN	Resin coated	H CN	over 3.00 to 12.0, incl.	Special resin coated to permit automatic coiling. Especially suitable in the field of foods.
RC		H RC	over 1.00 to 3.00, incl.	
WX		H WX	over 0.18 to 1.00, incl.	
Bare wire	No coated	H UB	over 0.080 to 0.80, excl.	Bare surface without coating affects coiling performance, but has good appearance and permits electrolytic polishing without prior processing.
		H EB	over 0.50 to 2.00, excl.	
		H NB	over 2.00 to 12.0, incl.	
NAS HERCULEE	Nickel coated	H NF	over 0.50 to 2.90, incl.	Feature of lubricating coat is same as above, except that applicable steel type is NAS 301H.
		H UBNS	over 0.10 to 0.50, excl.	
		H NF	over 0.18 to 0.50, excl.	
NAS MIGHTEN wire	Nickel coated	H MT	over 0.10 to 0.70, incl.	Provided with tensile strength equivalent to the music wire (SWP-A) by use of a special wire drawing process. Prolonged life, and spring design feasible for use under high stresses.
	No coated	H MB		
Straightened wire	No coated	1/2HT UB	over 0.18 to 0.80, incl.	Provided with straightness, uniformity, and fatigue resistance by means of a special heat treatment. Intended for torsion and formation of springs whose straightness is required.
		1/2HT EB	over 0.80 to 1.60, incl.	
		3/4HT UB	over 0.18 to 0.80, incl.	
		3/4HT EB	over 0.80 to 1.60, incl.	
		4/4HT UB	over 0.40 to 0.80, incl.	
		4/4HT EB	over 0.80 to 1.60, incl.	

### 3. Specification

#### (1) Spring Wire for General Use

Table 1-3 Tensile Strength

Wire diameter mm	Grade	Tensile strength N/mm <sup>2</sup>		
		Class A (WPA)	Class B (WPB)	Class C (WPC) <sup>(1)</sup>
	NAS 316 (SUS316) NAS 304 (SUS304) NAS 302 (SUS302) NAS 304N (SUS304N1)		NAS 304 (SUS304) NAS 302 (SUS302) NAS 304N (SUS304N1)	NAS 631J1 (SUS631J1)
0.080 0.090				—
0.10 0.12 0.14 0.16 0.18 0.20	1650~1900		2150~2400	1950~2200
0.23 0.26 0.29 0.32 0.35 0.40	1600~1850		2050~2300	1930~2180
0.45 0.50 0.55 0.60			1950~2200	1850~2100
0.65 0.70 0.80 0.90 1.00	1530~1780		1850~2100	1800~2050
1.20 1.40	1450~1700		1750~2000	1700~1950
1.60 1.80 2.00	1400~1650		1650~1900	1600~1850
2.30 2.60	1320~1570		1550~1800	1500~1750
2.90 3.20 3.50 4.00	1230~1480		1450~1700	1400~1650
4.50 5.00 5.50 6.00	1100~1350		1350~1600	1300~1550
6.50 7.00 8.00	1000~1250		1270~1520	
9.00			1130~1370	—
10.0	—		980~1230	
12.0			880~1130	

- Note (1) Subject to agreement between the parties concerned, the increment in tensile strength of NAS 631J1-WPC wire after precipitation hardening heat treatment (air cooling after heating at 470 ± 10°C for 1 h) shall be not less than 250 N/mm<sup>2</sup>.
- Remarks 1. For an intermediate diameter, the tensile strength value specified for the next larger diameter shall be applied.  
2. The dispersion of tensile strength within one coil of wire shall generally be within one half of the range of tensile strength given in Table 1-3.