MATERIALS
WIRES & FOILS

- Metallization Aluminum Wires ..... K 02
- Wire Forming for Vacuum Metallization ..... K 03
- Protective Aluminum Rolls ..... K 04
- Protective Coating NE-200 ..... K 05
- Ultrathin Foils ..... K 06
- Foils & Rods ..... K 07
- Bonding Wires ..... K 08

Metallization Aluminum Wires

These pure aluminum wires are used for metallization process in vacuum-coating equipments.

Al wire on plastic spool

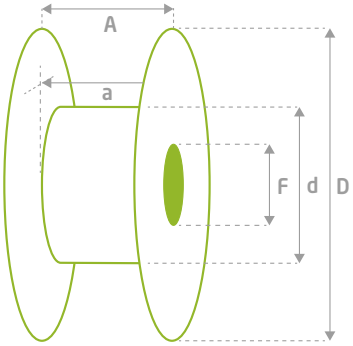
SPECIFICATIONS

Purity grades: from 99.5% to 99.99%
Wire diameters: from 1.00 mm to 3.00 mm

APPLICATIONS

- Flexible packagings
- Solar films
- Capacitors
- Holograms
- Head lights
- Reflective coatings (various applications)

Each spool is delivered with a specific certificate of analysis, and individually identified which guarantees the total traceability of the material.



ORDERING INFORMATION

P/N (INVENTORY)	DIMENSIONS	PURITY
ALU1.0	Ø 1.0 mm	99.99%
ALU1.2	Ø 1.2 mm	99.99%
ALU1.5	Ø 1.5 mm	99.99%
ALU1.57	Ø 1.57 mm	99.8%
ALU2.0	Ø 2.00 mm	99.99%

Other diameters and purities on request.

STANDARD SPOOL DIMENSIONS (mm)

D	d	F	A	a	CAPACITY
200	102	51	53	44	2.2 kg
250	125	18	78	68	5.2 kg

Wire Forming for Vacuum Metallization

Neyco provides Aluminum, Stainless Steel, Nickel Chromium wire forming and other dedicated shapes for vacuum metallization.

Each lot of product is identified with a dedicated number, which guarantees the total traceability of the material.

ORDERING INFORMATION

P/N (INVENTORY)	MATERIAL	WEIGHT	PURITY	PACKAGING
ALR0.7-8.1X3.6	Aluminum	0.2 g	99.99%	Per 5000 pcs UHV cleaning
AL0.8-3.4	Aluminum	0.3 g	99.99%	
ALR0.8-3X12X0.4	Aluminum	0.4 g	99.99%	
ALR1.5-14X4	Aluminum	0.35 g	99.99%	

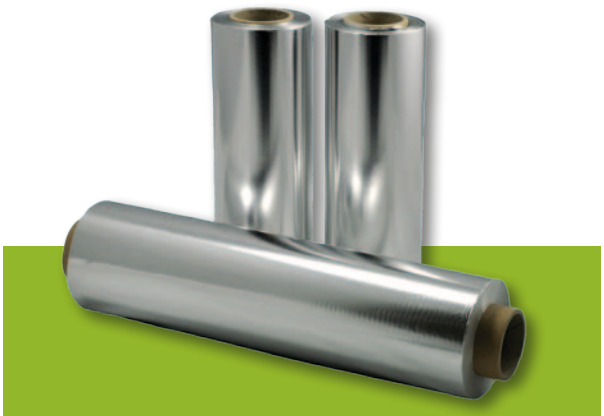
Other shapes, dimensions and weights: according to request.

Tungsten filament with Aluminum springs

Aluminum springs 0.35 g

Protective Aluminum Rolls

Neyco provides high-quality aluminum rolls dedicated to vacuum applications (secondary vacuum compatible).



Aluminum rolls

P/N (INVENTORY)	DIMENSIONS	THICKNESS	PURITY
ROULALU	200 mm x 200 m	11 µm	99.5+%
ROULALU2	500 mm x 200 m	12 µm	99.5+%
ALLU100X30	100 mm x 200 m	30 µm	99.5+%
ROULALU-500x50	500 mm x 50 m	50 µm	99.5+%

Other thickness and dimensions available on request (even in small quantities).

Protective Coating NE-200

NE-200 is a transparent hydrophobic hard coatings (SiO_2 base) liquid precursor.
Other name: Hexamethyldisiloxane, HMDS.

PHYSICAL AND CHEMICAL PROPERTIES

Formula	$O[Si(CH_3)_3]_2$
Boiling point	100°C
Melting point	-68°C
Vapour pressure	42 mbar at 20°C
Specific gravity	0.76 g/cm³

PACKAGING

5 liters plastic case (continuous inventory).

Ultrathin Foils

Neyco provides metal based and metallic alloys in ultrathin foils, from 2.0 to 25 µm thickness.

MATERIALS

Al, Al_2O_3, Be, B, Cr, Co, Cu, Ge, Au, Hf, In, Fe, Pb, LiF, Mg, MgF_2, Mo, Ni, Nb, Pd, Pt, Si, SiO_2, Si_3N_4, Ag, Sn, Ta, Ti, TiO_2, W, V, Zn, Zr.

PURITIES

99.8% to 99.99%.

All items are delivered with an analysis certificate.

Foils & Rods

Neyco provides high purity metals and metal alloys in wires, rods, plates and foils.

SOME EXAMPLES OF MATERIALS

Al, Ag, Cr, Co, Cu, Hf, In, Fe, LaB_6, Mg, Mo, Ni, Nb, Pb, Ta, Sn, Ti, W, V, Zn, Zr, Stainless Steel 304L/316L/316LN...

PURITIES

99.9% to 99.999+%.

FOILS THICKNESS

25 µm to 1 mm.

FOILS AND RODS DIMENSIONS

According to request.

All items are delivered with an analysis certificate.

Bonding Wires

Aluminum bonding wire is used for a wide range of products, such as integrated circuits (ICs and LSIs) and transistors. It connects aluminum electrode and lead electrode on semiconductor IC chip.

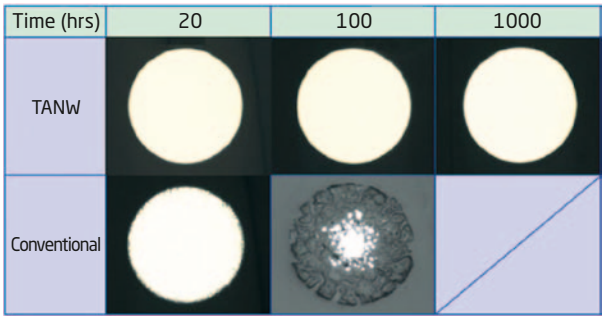
Our bonding wires are delivered with a specific certificate of analysis.

TANAKA ALUMINUM BONDING WIRE

FEATURES

- Excellent corrosion resistance under PCT (TANW type).
- Excellent bondability.
- Hard, Soft-1, and Soft-2 are available according to applications.

CROSS SECTION AFTER PCT



Wire Dia.: 300 µm PCT: at 121°C, 100% RH, 2atm

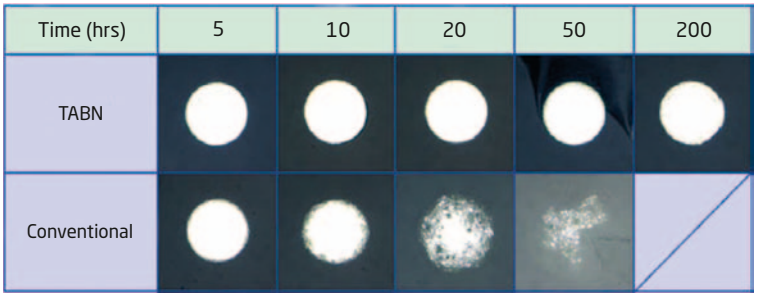
	TANW Soft 1		TANW Soft 2		
DIAMETER (µm)	BREAKING LOAD g (at RT)	ELONGATION (%)	BREAKING LOAD g (at RT)	ELONGATION (%)	PACKAGING
100 ±5	50 - 80	10 - 30	35 - 55	5 - 25	Plastic Spools N° 88 / N° 88B Length on request
125 ±5	70 - 120	10 - 30	55 - 80	5 - 25	
150 ±5	100 - 200	10 - 30	80 - 120	5 - 25	
175 ±5	140 - 240	10 - 30	105 - 150	5 - 25	
200 ±7	200 - 300	15 - 40	140 - 200	9 - 25	
250 ±7	300 - 450	15 - 40	210 - 300	10 -30	
300 ±7	400 - 600	15 - 40	300 - 420	10 -30	
350 ±7	570 - 960	15 - 40	450 - 550	10 -30	
380 ±7	750 - 1100	15 - 40	500 - 700	10 -30	
400 ±7	750 - 1250	15 - 40	550 - 750	10 -30	
450 ±7	950 - 1580	15 - 40	700 - 850	10 -30	
500 ±10	1170 - 1900	15 - 40	800 - 1100	10 -30	

TANAKA ALUMINUM / 1% SILICON BONDING WIRE

FEATURES

- Uniform Si distribution.
- Stable mechanical properties.
- Stable quality wire without any curl, dirt and surface flaws.
- Excellent bondability.
- Excellent corrosion resistance under PCT (TABN type).

CROSS SECTION AFTER PCT



Wire Dia.: 30 µm PCT: at 121°C , 100% RH, 2atm

TYPE	DIAMETER (µm)		BREAKING LOAD g (at RT)	ELONGATION (%)	PACKAGING
TABW TABN	18	H	7.5 - 8.5	0.5 - 4.5	Spools AL-2 / AL-4 Length on request
		SR	6.7 - 7.5	0.5 - 4.5	
	20	H	9 - 11	0.5 - 4.5	
		SR	8 - 10	0.5 - 4.5	
	25	H	15- 17	0.5 - 4.5	
		SR	13 - 15	0.5 - 4.5	
	30	H	21 - 23	0.5 - 4.5	
		SR	17 - 19	0.5 - 4.5	
	32	H	21 - 23	0.5 - 4.5	
		SR	19 21	0.5 - 4.5	
	35	H	29 -32	0.5 - 5	
		SR	26 - 29	0.5 - 5	
	38	H	34 - 37	0.5 - 5	
		SR	31 - 34	0.5 - 5	
	40	H	38 - 42	0.5 - 5	
		SR	34 - 38	0.5 - 5	
	50	H	60 - 66	0.5 - 6	
		SR	47 -53	0.5 - 6	
	80	H	130 - 150	0.5 - 6	

See Section E - Precious Metals - Vacuum Deposition Materials *in this catalogue for* ***Gold bonding wires****.*