

# NPS-L, NPS-L-HB, NPG-J

~High Adhesive  
Nano Paste®~

Due to the stability of the dispersion, our product shows excellent printing features, and it is a suitable material for printed electronics.

## Features

- Ensures high adhesion to variety of substrates.
- Metal film can be formed with the wide range of thickness.
- We also offer Gold Nano Paste® NPG-J for ink-jet printing.

## High adhesion

- Due to our original metal composite technology, high adhesion to variety of substrate was achieved. **Patent registered**

### Adhesion to substrate of metal film of NPS-L and NPS-L-HB

Substrate	PET	Cu	Ni	Glass	Alumina
Heating condition (under air atmosphere)	120°C×1h	120°C×1h	120°C×1h	400°C×1h	400°C×0.5h
Adhesion※	Class 0	Class 0	Class 0	Class 0	Class 0

※Test method: Cross-cut adhesion test(Former JIS K 5400) Classification of adherence : (Excellent) 0·1·2·3·4·5 (Poor)

## Specification(typical data)

- Since our product has favorable adhesiveness, it is able to form metal film on various substrates.

Item	NPS-L	NPS-L-HB	NPG-J
Component metal	Ag	Ag	Au
Heating condition	120°C×1h	120°C×1h	250°C×1h
Formable thickness	0.2~7μm	5~50μm	0.2~1μm
Volume resistivity	10 μΩ·cm	10 μΩ·cm	12 μΩ·cm
Pencil hardness	H	2H	3H
Printing method	ink jet screen	screen	ink jet
Adhesible substrate	Au, Ag, Cu, Ni, PET, Glass, Alumina, etc.		Au, Ag

Above data are representative value, not a standard value.