

## UDNANO

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**Nano Materials – Hybrid graphene manufactured in a hybrid method**

Hi-puri	99at%≥C (O≤0.95at%, S≤0.05at%) High purity, Particle-size: 5μm, Thickness: <5nm High-performing graphene, dispersion, conductivity and thermal conductivity.
Hydra	Hydrogen content: 3at%, Particle-size: 5μm, Thickness: <5nm, Graphene designed to induce changes in the physical properties of the base.

**Composite – Meet graphene with infinite possibilities**

Hi-puri Coated Al	Used as a material to suppress the separation between graphene - metal. Particle-size: 21μm, made from Hi-puri coated in aluminum.
Hydra Coated Al	Used as a material to suppress the separation between graphene - metal. Particle-size: 21μm, made from Hydra is coated in aluminum.
Hi-puri Fuctionalized SnO <sub>2</sub>	Applied as a material for NO <sub>2</sub> gas measurement at room temperature. Particle-size: 1.8μm, made from the functionalized SnO <sub>2</sub> by 3wt% of graphene.
Hi-puri Fuctionalized Ag	Available for contact materials and semiconductor devices. Particle-size: 10μm powder made from the functionalized Ag by 3wt% of graphene.
Hi-puri Riched SnO <sub>2</sub>	Particle-size: 11.8μm, 30wt% of SnO <sub>2</sub> nanoparticles are functionalized on graphene.
Hi-puri Riched ZnO	Particle-size: 11μm, 30wt% of ZnO nanoparticles are functionalized on graphene.
Hi-puri Riched Ag	Particle-size: 11μm, 30wt% of Ag nanoparticles are functionalized on graphene.

**Paste - Conductive paste**

HICON-T	Max 900°C (available), 10Ω/sq, Gel type, High conductivity, High temperature adhesion, Hardness: 3H, Non-volatile, Life waterproofing product. (Silkscreen available)
HICON-N	Enough applying time & workability - when silkscreening, Mid-viscosity, Max 350°C (available), 29.6Ω/sq.
HICON-V	Flexibility, Strong waterproofing, Good diffusion, Curing conditions: (Surface) 5 secs at 25°C, Maximum available temperature: 200°C, 99.6 Ω/sq.

**Ink - Conductive ink**

HICON-I	Ink form, Flexibility, Strong waterproofing, Good diffusion, Curing conditions: (Surface) 20 secs at 25°C, Maximum available temperature: 200°C, 99.6 Ω/sq.
HICON-S	For Spray, Flexibility, Strong in water condition, Good diffusion, Curing conditions: (Surface) 50 secs at 25°C, Maximum available temperature: 200°C, 99.6 Ω/sq.

**Paint - Heat-resistant paint**

HIST-C	By applied thickness, controlling the heat emission/radiation, Protected from heat. Hardness: more than 6H, Insulated, Excellent adhesion and life waterproofing product.
HIST-CS	For spraying. Same as HIST-C.
HIST-P	Possible to apply thinly spraying, Strong flame retardant. Hardness: more than 6H. Insulation, Excellent adhesion and life waterproof product.
HIST-PS	For spraying. Same as HIST-P.

## UDCORE

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**Unit – Heater parts, 300% efficiency, 1/3 of power consumption (compared to ceramic heaters)**

Hience-F	0.2mm of thickness, Flexible film heater, Appearance material: Polyimide Maximum available temperature: 200°C.
Hience-U	400°C(Stable use), 1.5mm of thickness, Plate heaters, Heating the 500mmx120mm area by 220V/800W/400°C.
Hience-SU	600°C(Stable use), Thickness: 1.5mm, Plate heaters, Heating the 50mmx50mm area by 28V/87W/600°C.

**Module – Block heater module, 300% efficiency, 1/3 power consumption (compared to PTC heaters)**

Hience-M	Modules that easy expansion of three-axis between parts. By 220V/400W, Heating the air in 130°C with 2m/s wind speed. By 28V/87W, Heating the air in 80°C with 3.5m/s wind speed.
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**Material for Electric – Composite and components for gas sensor devices**

SnO <sub>2</sub> for Gas sensing	25°C, Room temperature detecting the NO <sub>2</sub> gas.
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**Metal Casting Materials – Castings materials capable of mass-producing graphene metal alloys**

Hi-puri Al mixture	Particle-size: 21μm,	When using ours as an additives or main materials for casting alloys, can improve and control elasticity, yield, tensile strength and elongation.
Hi-puri Al composite	Hi-puri and aluminum mixture/composite.	
Hydra Al mixture	Particle-size: 21μm, Controlling characteristics by regulating hydrogen content in Hi-puri and aluminium mixture/composite.	
Hydra Al composite		