STEIGER
Galvanotechnique SA

ARGODURON®

for power connectors

Contact pin and socket for electrical battery charger.
Pin coated with Argoduron®
Socket coated with Argoglide®.

Plug for electrical battery Charger

With the advent of battery powered vehicles, e-bikes, e-scooters, e-mopeds and other power applications, there is a real need for durable, reliable power connectors.
Goldplated power connector contacts are too costly; tinplated contacts cannot satisfy the durability requirements in power equipment such as battery chargers.
The solution, until now, has been found in silverplated contacts, but traditional silver plated contacts need improvement for long life endurance, and high mating cycles of modern power connectors.
Argoduron®, developed by Steiger Galvanotechnique SA, is the answer for a durable and reliable contact coating system.

Argoduron® is an electrodeposited coating with an extremely fine grain structure which increases hardness compared to pure silver. This specific coating has excellent long term thermal stability in both physical and electrical contact properties.

Argoduron® versus pure silver:

- Superior wear resistance
- Improved vibration resistance
- Decreased incidence of cold-welding
- Reduced insertion force
- Decreased wear rate
- Significantly increased mating cycles before failure
- The alloy resistivity is higher than that of pure silver but this doesn't affect the contact resistance much.

Coating properties

*acceptable; ** good; *** excellent

	Argoduron®	Argoglide®	Standard Ag	Remark
Corrosion resistance	***	***	***	
Tarnish resistance	*[1]	**	*[1]	[1] after passivation
Wear resistance	***	***	*	in sliding function
Sliding ability	**	***	*	
Electrical contact resistance	***	***	***	
Solderability	**	o[2]	**	[2] lower weldability than Ag
Microhardness HV (ISO 4516)	130–170	90–130	90–130	
Ductility %-elongation	> 4	> 10	> 10	
Electrical resistivity [µΩ cm]	10	1.61	1.61	
Maximum operating temperature [°C]	320	850[3]	850[3]	[3] above 350 °C in inert atm.
Usual thickness [µm]	10–50	10–100	2–50	
Suitability for electrical contacting	***	***	*	in terms of mating cycles

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