



Electroless metal deposition



Nidega chem high P HS

High phosphorus containing nickel layers

Nidega chem high P HS is a stable, ammonia-free, self-adjusting pH electroless nickel plating bath. Nidega chem high P HS is designed to produce a corrosion resistant, high phosphorus deposit on steel, iron, stainless steel, aluminium, copper alloys and nickel alloys, beryllium, titanium and other substrates.



Properties and Benefits

- High phosphorus content
- High rate of deposit ($\sim 14 \mu/h$) remaining the same over several MTO
- High corrosion resistance (passes nitric acid test)
- Consistent rate
- Nonmagnetic deposit
- Excellent bath stability
- Self adjusting pH, non-ammoniated system
- Ductile, pore free, semi-bright deposit
- Suitable for a wide range of substrates
- Hard, wear-resistant, gliding layer

Application area

- Technical applications

Nidega chem high P HS_E

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Technical Data

Electrolyte parameters	
Parameter	Range
pH-Value	5,0 – 5,2 Nidega chem high P HS is made up at a pH of 5,0. If necessary the pH may be adjusted upwards with filtered liquid NaOH 5% chem. pure, or downwards with diluted sulphuric acid.
Nickel	6,1 g/l
Temperature	85 – 92°C Below 85 °C no parts should be inserted the bath. If the bath is direct heated protect the bath from local overheating.
Agitation	Both mechanical and uniform air agitation (using filtered air from a low pressure blower, rather than compressed air) may be used. Strong agitation, directed at the plating parts, should not be used. The air must be free of oil.
Rate of deposition	14 – 15 µm/h
Bath load	0,6 – 2,0 dm²/l
Filtration	Continuous filtration, though 5-10 micron filter bags or cartridges, is recommended, particularly for applications where deposits smoothness is of primary importance. Whenever the bath is transferred from one tank to another, batch filtration through a 3 or 5 micron filter bag is recommended.

Deposit characteristics

Specific gravity	7,9 g/cm³
Nickel	ca. 87-88 %
Phosphorus	ca. 11-13 %
Magnetics	nonmagnetic

Products available

3158100	Nidega chem high P HS Make up Part A
3158150	Nidega chem high P HS Make up Part B
3158200	Nidega chem high P HS Nickel solution
3158300	Nidega chem high P HS Reduction
3158510	Nidega chem high P HS Stabilizer
3158550	Nidega chem high P HS Correction
3152300	Stabilizer XP 0119 A

FOR ANY FURTHER INFORMATION WE WILL BE PLEASED TO BE AT YOUR DISPOSAL
PERSONALLY UNDER +43 (0)2287 71073 OR OFFICE@IWGPLATING.COM