



Electroless metal deposition



# Nidega<sup>®</sup> chem mid P

## Nickel layers for technical applications with approx. 7% phosphorus

Nidega<sup>®</sup> chem mid P is a stable, ammonia-free, self-adjusting pH electroless nickel plating bath. Nidega<sup>®</sup> chem mid P is designed to produce a medium phosphorus containing nickel deposit on steel, iron, stainless steel, aluminium, copper alloys and nickel alloys, beryllium, titanium and other substrates.



### Properties and Benefits

- Medium phosphorus content
- Consistent rate
- magnetic deposit
- Excellent bath stability
- Self adjusting pH, non-ammoniated system
- Ammonium free
- Ductile, pore free, semi-bright deposit
- Suitable for a wide range of substrates
- Hard, wear-resistant, gliding layer

### Application area

- Technical applications

Nidega chem mid P\_E

our know-how  
is your success

[iwgplating.com](http://iwgplating.com)





Electroless metal deposition



## Technical Data

Electrolyte parameters	
Parameter	Range
pH-Wert	4,8 – 5,1; Optimum: 4,9 Nidega® chem mid P is made up at a pH of 4,9. 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
Sodiumhypophosphite x H <sub>2</sub> O	28 g/l
Rate of deposition	20 µm/h at 88 °C At lower temperatures correspondingly lower
Bath load	0,6 – 2,0 dm <sup>2</sup> /lt
Temperature	85 – 92 °C; Optimum: 88 °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.
Stability	Tanks protected by protectostat: > 35 ml/l Tanks not protected by protectostat: > 50 ml/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 .....	8,1 g/cm <sup>3</sup>
Nickel .....	ca. 91 - 95 %
Phosphorus .....	ca. 5 - 9 %
Magnetics .....	magnetic

Nidega chem mid P\_E





Electroless metal deposition



## Products available

3155100.....	Nidega® chem mid P Make up
3155300.....	Nidega® chem mid P Nickel solution
3155200.....	Nidega® chem mid P Reduction
3155510.....	Nidega® chem mid P Stabilizer
3155400.....	Nidega® chem mid P 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](mailto:OFFICE@IWGPLATING.COM)

Nidega chem mid P\_E

our know-how  
is your success

[iwgplating.com](http://iwgplating.com)

