

ELECTROLESS NICKEL. ENGINEERED FOR THE APPLICATION.

From medium- and high-phosphorus systems to specialized co-deposits and process support, Ronatec delivers electroless nickel solutions for demanding applications.

PRODUCT	DEPOSIT	KEY FEATURES	TYPICAL APPLICATIONS
Paladin 2012™ NEW TECHNOLOGY High Phosphorus	High P (>10% P)	- Up to 10,000 hours salt spray performance - As-plated hardness equivalent to mid-phos process - Single-component make-up, self pH-adjusting - High deposition rate	- Corrosion-critical applications - Enhanced wear resistance vs. traditional HPEN - Production consistency - Tested and proven results at Nadcap Materials Lab
RoHS EN 1012 High Phosphorus	High P (>10.5% P)	- High-phosphorus deposit - Fast plating rate (~0.7 mil/hr+) - Low metal (3 g/L) and standard (6 g/L) - Excellent corrosion protection	- Aerospace and defense - Harsh environments - Parts requiring consistent corrosion-resistant performance
RoHS EN 1013 High Phosphorus	High P (~10–12% P)	- Moderate rate of deposition - Excellent functional properties in terms of ductility, internal stress, solderability and corrosion resistance - Wide solution loading range - Rack or barrel applications	- Functional parts - General industrial - Applications requiring high corrosion protection
Paladin 2000™ NEW TECHNOLOGY Medium Phosphorus	Medium P	300–400 hours NSS - Single-component make-up 1:1 A:C replenishment - Fast plating rate	- General industrial - Production consistency - Simplified operation - RoHS compliant
RoHS EN 1000 Medium Phosphorus	Medium P (~6–9% P)	- Single-component make-up - Bright or semi-bright options - Low metal (3 g/L) and standard (6 g/L) - Designed for aerospace requirements	- Aerospace components - Fluid handling - General industrial - Parts requiring reliable corrosion performance
RoHS EN CSB Medium Phosphorus	Medium P (~6–9% P)	- Developed for aerospace/defense connector industry - Semi-bright, medium-phosphorus - Low metal (3 g/L) and standard (6 g/L) - Can pass adhesion bake without blistering	- Aerospace/defense connectors - Precision components - Parts requiring increased ductility
RoHS EN Frost Medium/High Phosphorus	Medium or High P options	- PTFE co-deposit technology - PFAS/PHOS/PFOA free - Extended MTO - Stable plating rate	- Low-friction applications - Wear resistance - Sliding or dynamic surfaces - Components requiring enhanced lubricity
ENSAT Process Support for Electroless Nickel	KEEP THE PROCESS ON TARGET. A full range of ENSAT service-action tools to help maintain consistent, high-quality electroless nickel deposits.		- pH adjustment chemistries - Wetting agents - Post-treatment products - Process additives and service tools

**THE RIGHT EN PROCESS
STARTS WITH THE APPLICATION.**

Talk with the Ronatec technical team.



760.453.7367



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ENGINEERING. CHEMISTRY. RESULTS.