TE CONNECTIVITY'S NEW HIGHLY SUSTAINABLE AND DURABLE ECONIDUR PLATED CONNECTOR CONTACTS

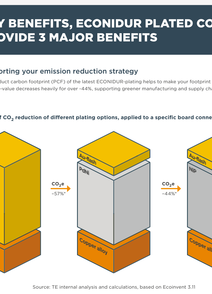
The future is here! TE Connectivity (TE) Introduces Revolutionary ECONIDUR Plating – Sustainable, Reliable, High-Performance, Innovation for a Greener Future.

TE Connectivity presents its ECONIDUR surface plated connector contacts, a breakthrough plating technology designed to replace traditional precious metal layers in contact surfaces. By selecting ECONIDUR plated contacts, you achieve dual advantages: stable performance and measurable sustainability benefits – delivering significant CO_2 emission reductions while maintaining uncompromised quality standards.

What is ECONIDUR plating

ECONIDUR contacts are plated with a well-designed Nickel-Phosphorous (NiP) plating which uses a sophisticated stack configuration. This is the key to high quality, and superb performance.

Schematic of ECONIDUR plating layers



Source: TE internal research and definition

KEY BENEFITS, ECONIDUR PLATED CONTACTS PROVIDE 3 MAJOR BENEFITS

1 Supporting your emission reduction strategy

The product carbon footprint (PCF) of the latest ECONIDUR plating helps to make your footprint greener. The PCF-value decreases heavily for over -44%, supporting greener manufacturing and supply chains.

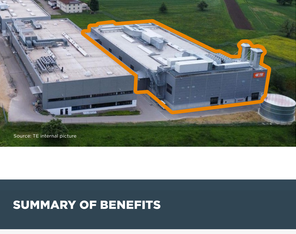
Schematic of CO_2 reduction of different plating options, applied to a specific board connector.

*Depending on layer thicknesses and particular board and connector type

Source: TE internal analysis and calculations, based on Ecoinvent 3.11

Targeting the Largest Greenhouse (GHG) Impact – Scope 3 Emissions.

Scope 3 emissions represent the most significant portion of Greenhouse Gas (GHG) impact across value chains. TE's ECONIDUR plating mainly impacts material-related Scope 3 emissions, addressing one of the biggest contributors to corporate carbon footprints.



The GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'.

Scope 1: Emissions are direct emissions from owned or controlled sources.

Scope 2: Emissions are indirect emissions from the generation of purchased energy.

Scope 3: Emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

2 Are your products and equipment facing high vibration or shock environment? The high performance of ECONIDUR plated contacts is your solution!

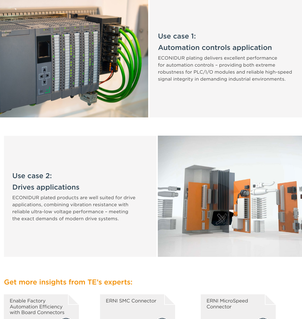
Overall, ECONIDUR plating reaches in minimum the same characteristics as a precious metal plating layer. For fretting and vibration resistance, ECONIDUR plated products are your reliable choice. NiP layers are far from being easy to be applied especially on contact surfaces. If done right – nickel phosphorus shows high performance for demanding applications.

CUSTOMERS NEED OF	ECONIDUR PLATED PRODUCTS SUPPORT
1. ENHANCED VIBRATION RESISTANCE	High withstand capabilities in terms of vibration in the long-term, gas influences and fretting.
2. RELIABLE HIGH-SPEED DATA TRANSMISSION	Reliable signal transmission up to several Gbit/s

3 Quality in process and product

Although it is a new plating, the process quality is maintained. For this process, TE developed a noteworthy measurement method to quantify the layer thickness and structure, specifically usable for ECONIDUR based platings.

TE Plating shop, Germany



Source: TE internal picture

SUMMARY OF BENEFITS

WHAT BENEFITS CAN ECONIDUR PLATED PRODUCTS BRING TO YOU?

- **Positive sustainability impact to help reach your green target**
- **Latest high-performance plating solution delivering superior vibration resistance and reliability for demanding applications**
- **High quality in product and processes, also by recently developed measurement method**

USE CASES

Use case 1: Automation controls application

ECONIDUR plating delivers excellent performance for automation controls – providing both extreme robustness for PLC/I/O modules and reliable high-speed signal integrity in demanding industrial environments.

Use case 2: Drives applications

ECONIDUR plated products are well suited for drive applications, combining vibration resistance with reliable ultra-low voltage performance – meeting the exact demands of modern drive systems.

Get more insights from TE's experts:

- Enable Factory Automation Efficiency with Board Connectors
- ERNI SMC Connector
- ERNI MicroSpeed Connector

Connect With Us

No matter your answers to the questions above, the engineering team at TE is here to help. Our team brings deep expertise in warehouse automation applications and can work with you to co-create a customized solution to fit your needs. At TE, we provide highly engineered connectivity solutions that support virtually uninterrupted operations for power, signal, and data, including high-speed connectivity. We also build integrated components and solutions to help simplify your most complex manufacturing processes.

We are ready to help you take your industrial automation capabilities to the next level.

Contact a TE expert today

te.com

Ad-24129