

High Performance Stencils in a Wipe

Frequently Asked Questions

Q: What does Nano-ProTek do?

A: Nano-ProTek is an easily applied, stencil coating technology that renders the stencil surface 'fluxophobic'. It increases cleaning effectiveness and reduces cleaning frequency.

Q: What is the chemistry driving Nano-ProTek?

A: Created by the DEK team, Nano-ProTek features a proprietary technology that represents a breakthrough industry first. As such, we are not able to reveal the exact chemistry behind it.

Q: How do I know if it is working?

A: Water will bead up on the coated surface like a newly waxed car.

Q: Is it a wax?

A: No. It is a chemical bond with the metal.

Q: What stencil materials is it compatible with?

A: Both Stainless Steel and Nickel materials, in electroform and laser-cut varieties.

Q: Will it work on materials other than Stainless Steel and Nickel?

A: Possibly. Due to the unique formulation, this technology presents vast potential for a wide range of materials. However, these are as yet untested. We will be developing the technology and testing these capabilities into the future.

Q: Is the product safe?

A: Yes. It is REACH compliant and as safe as IPA. While it does not contain any chemicals known to cause health issues, we do recommend that operators wear gloves since, like IPA, it can dry the skin. We also advise that manufacturers use the product in a ventilated area. MSDS will be available in multiple languages on www.dek.com, while further information will be inserted into packaging.

Q: Is DEK the only supplier of this chemical?

A: Yes. DEK and our partners are the only supplier of this chemical.

Q: What is the largest size stencil it will coat?

A: Up to a 29" X 29" stencil.

Q: Should I coat the top and bottom of the stencil?

A: We recommend manufacturers only coat the bottom side of the stencil – this is both cost and process efficient.

Q: Can I treat more than one stencil with each wipe?

A: Following extensive lab testing, each Nano-ProTek wipe is saturated with precisely the correct amount of chemistry proven to be optimised for one stencil. Therefore, if you attempt to use the Nano-ProTek treatment for more than one stencil, resulting performance will be greatly reduced. It is also critical that Part B is not opened before the use of Part A; this will cause the chemistry to quickly evaporate.

**Q: Can I apply Nano-ProTek to the squeegee blade?**

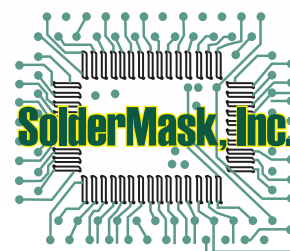
A: Yes. However, our tests have not shown any additional benefits related to coating the squeegee blade.

Q: Can I apply the wipes to Stainless Steel kitchen appliances or car wheels etc.?

A: Yes; it will prevent finger prints and smudges. However, of course, we do not encourage employees to take product from their company without permission.

Q: What if I do not have a source of water to rinse the primer off prior to coating?

A: In relation to Stainless Steel stencils, as long as the stencil is clean and dry – i.e. direct from the stencil washer – you can coat it directly with Nano-ProTek. This will deliver 95% effectiveness. In relation to Nickel stencils, we recommend that you use the primer, rinse and coat with Nano-ProTek. Failure to use primer with Nickel stencils severely degrades performance of the coating.



Q: Do I have to use DI water to rinse?

A: No. Clean water will work fine, although DI is the best choice if available.

Q: What if I don't rinse with water between the primer and Nano-ProTek?

A: If the primer is used, it needs to be rinsed away with water for at least one minute. Failure to do this will not allow Nano-ProTek to stick to the base metal.

Q: Does the rinse water need to be treated or can it be disposed of down the drain?

A: No, it does not need any treatment and can be rinsed down a standard drain. However, we would naturally advise you to follow the laws of the country where applied.

Q: Does the stencil have to be completely dry prior to application of the Nano-ProTek?

A: It should either be towel dry or blown dry with compressed air.

Q: Should I rinse Nano-ProTek off after application?

A: It can be simply towel dried although rinsing will not cause damage if there is a contamination concern.

Q: How long does Nano-ProTek have to be left on the surface of the stencil to work?

A: It takes approximately 30 seconds for the chemistry to react with the metal surface.

Q: Will the wipe cause linting in the apertures?

A: Nano-ProTek is a quality wipe dedicated to this application. As such, it is entirely lint-free.

Q: What is the shelf life of Nano-ProTek?

A: At least two years when in a sealed package; the box and foil are stamped with the date of manufacture.

Q: Will Nano-ProTek affect my solder paste?

A: No. Nano-ProTek is completely inert when dry and will not influence solder paste; it cannot contaminate the PCB in any way.

Q: Do I need to re-design my stencil apertures if I use Nano-ProTek?

A: No. Nano-ProTek is only 1-4 nanometers thick (billionths of a meter). Therefore, it will not affect aperture size.

Q: Where can I purchase Nano-ProTek?

A: From DEK VectorGuard® Franchisees, DEK VectorGuard® Licensees, DEK Representatives and Distributors or directly from DEK. Other sales channels may be available in the future.

Q: Does the technology work with any USC fabric and chemistry?

A: DEK recommends using a high quality USC fabric that does not lint such as the DEK SMT fabric; we do not recommend using IPA in your printers since DEK ProXF is a more effective, safer cleaning solution. Reduced cleaning frequency will justify the slightly higher price of quality fabrics and cleaning solutions.

Q: Is Nano-ProTek more effective when run with ProActiv?

A: This is being tested. We predict the combination will likely create a good merger of improved transfer efficiency (ProActiv) and enhanced cleanability (Nano-ProTek).

Q: How will Nano-ProTek work with Cyclone?

A: Very well. By combining the two technologies, you will see the benefits of high-speed Cyclone cleaning in addition to the reduced cleaning cycles enabled by Nano-ProTek.

Q: Is there a particular technology combination recommended for an optimized print?

A: For an optimized print, we recommend using a DEK screen printer combined with Cyclone, ProActiv, Paste Roll Height Monitor, Adjustable Stencil Mount, Verification & Traceability, HD Grid-Lok®, and Hawkeye® inspection. This set-up should be deployed in combination with a VectorGuard® stencil manufactured by DEK or a VectorGuard Franchisee, coated with Nano-ProTek. Use DEK SMT fabric and DEK ProXF cleaning solution – all backed by an annual service support agreement.

Q: Will Nano-ProTek work with stencils manufactured by companies other than DEK?

A: Yes. Because there is no equipment needed to apply, Nano-ProTek can be easily applied by anyone onto any stencil.

Q: Is it necessary to re-apply Nano-ProTek?

A: Nano-ProTek is a permanent bond. However, over time, it is possible that it can become abraded or scratched off. It can also be burned off at a high temperature or washed off with a strong acid or base. You can test whether re-application is necessary by writing on it with permanent marker; the marker should not stick. Also, if it beads water like a newly-waxed car, it is still working. Nano-ProTek can be reapplied at any time and will only stick to areas not already covered.

