

SPECTRACOAT® - Durable color coating for stainless steel



SPECTRACOAT® is a hard & wear resistant color coating, hypoallergenic, sterilizable, biocompatible and implantable.

SPECTRACOAT® comprises a coating system of metal and oxide. Its thickness is 2 to 3 microns. A large range of different colors can be obtained, comparable to anodized titanium. The coating however shows far superior wear resistance when compared to colored titanium.

SPECTRACOAT® can be applied not only to stainless steel but also to other steels, copper, brass aluminum, nickel, titanium, ceramics and plastics.

SPECTRACOAT® is mainly used for **decoration** and **identification**. A wide and precise gamut of warm, dense and metallic colors makes it suitable for artistic creativity. The wear resistance is far superior to previous or other products.

A wear test consisting in 150 cycles of reciprocal movement against normalized fabric (EMPA Art No 701 ou 702), under 0.5 Kg load, in dry as well as in humid environment, showed excellent resistance in both tests.

In a 24h « accelerated » wear test, i.e in a vibrating vessel containing ceramic pellets, the Spectracoat coating applied to a watch bezel showed only partial removal on raised sharp edges.

Excellent resistance to sun and salt spray exposure.

The standard sunlight exposure test for watches (72h at 5.5 mW/cm²) caused no degradation.

The standard salt spray test (96h at 35°C) caused no measurable corrosion.

Medical instruments, identified with different colors, successfully passed cleaning, disinfection and sterilization procedures as well as the abrasive handling in metallic baskets. All colors showed no degradation after a hundred cleaning cycles in alkaline detergent, followed by disinfection at 60°C, plus more than 500 sterilization cycles at 134°C.

Applications

- Watches: movement parts, screws, plates, bridges, wheels, cases
- Jewelry : earrings, bracelets, straps, necklaces
- Spectacle frames
- Leather goods : buckles, clasps, fittings
- Piercing: wide range of long-term, hypoallergenic decorative parts
- Medical instruments: pliers, tongs, nippers, scissors, ancillaries

