

Bossklein®



MATERIAL
COMPATIBILITY TESTING

INSTRUMENTS

IDactiv

Instrument Disinfectant and Cleaner



Testing matters

Bossklein IDactiv Instrument Disinfectant and Cleaner is a concentrated solution used for the disinfection and cleaning of instruments and tools prior to terminal sterilisation. Designed for use inside an instrument or ultrasonic bath, using the method of immersion.

This test report presents the evaluation of Bossklein IDactiv, for its material compatibility with a range of commonly used, high quality dental instruments from a selection of well known and trusted manufacturers.

The objective of this study was to assess the potential effects of the high performance IDactiv solution on various materials and coatings;

including stainless steel, titanium and plastics. Ensuring that repeated exposure does not compromise the integrity, functionality, or longevity of the instruments.

The process involved simulated clinical conditions to replicate real-world usage, focusing on material degradation, discolouration, corrosion, and structural changes.

The findings of this study will provide both users and suppliers valuable insights into the suitability of Bossklein IDactiv for routine instrument reprocessing in dental practices. Demonstrated with high resolution photographs before and after repeated exposure.

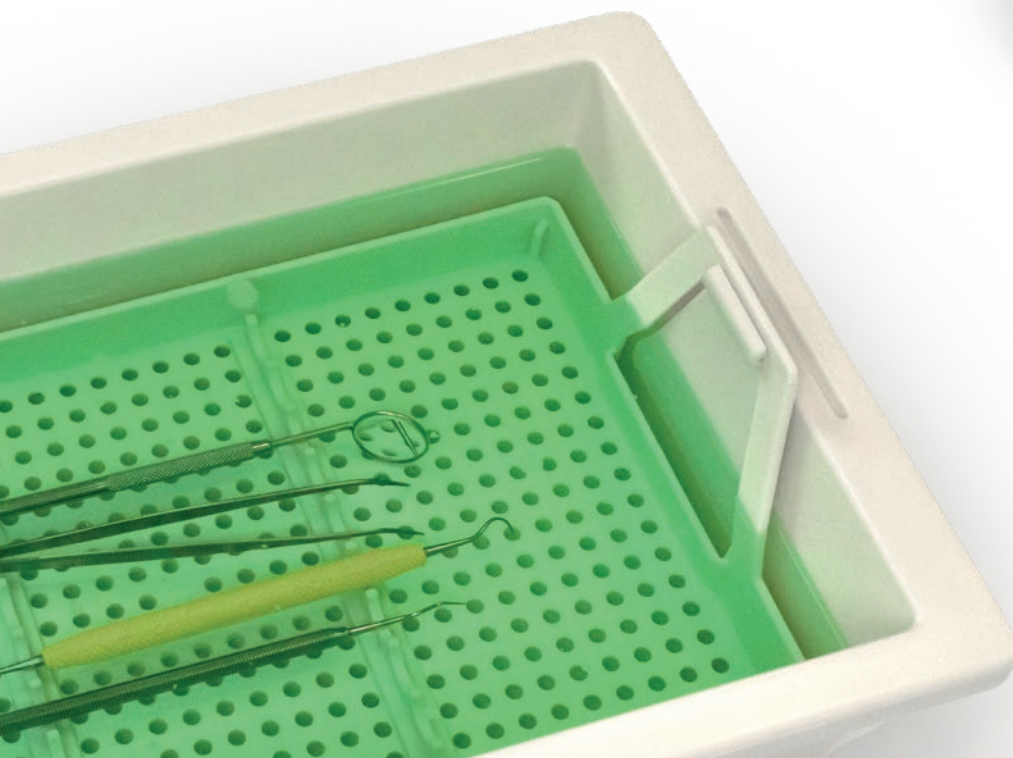
Materials used for test

Larident 3L Instrument Cleaning Tray (Calcium carbonate filled Polypropylene)

Bossklein IDactiv Instrument Disinfectant and Cleaner.
Batch No: 2408292.
Expiry Date: 2027.07

Various dental instruments from manufacturers Parkell, Directa & Kohler

Deionised water



parkell[®]

DIRECTA
directadental.com

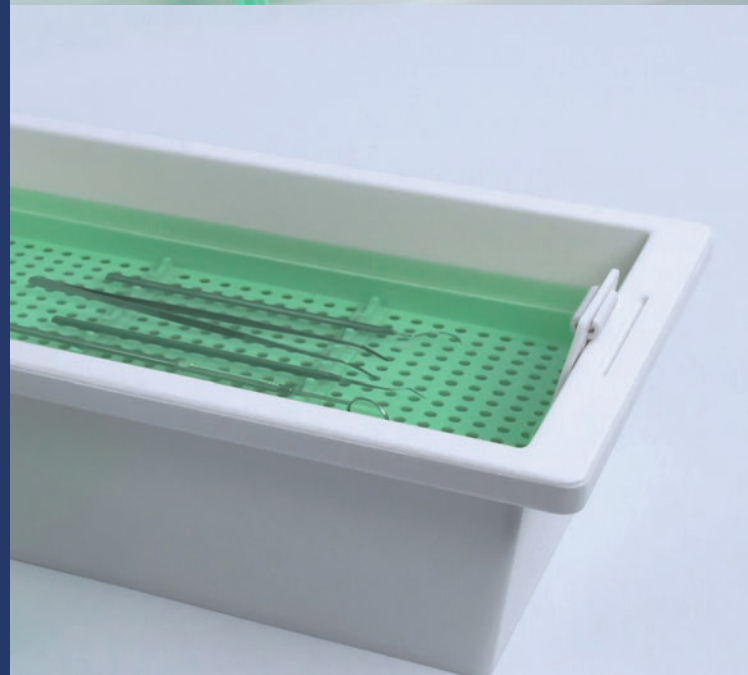
K KOHLER[®]
MEDIZINTECHNIK

Test method

1. Remove the basket from the cleaning tray and evenly spread the instruments in the basket.
2. Weigh out 2880g deionised water, add 120g IDactiv to achieve 3L, 4% solution. Pour solution into Instrument Cleaning Tray
3. Lower the basket to completely immerse the instruments in the solution and start a timer.
4. After 60 minutes soaking, lift the basket from the solution, and shake to remove any excess.
5. Place the basket into the sink, and rinse with 1 litre deionised water. Shake the basket to remove excess water and leave on the bench for 60 minutes to dry.
6. After 60 minutes, repeat steps 3 to 5, using the same solution for one day.
7. Change IDactiv solution daily.

Method was repeated over 9 days, with the instruments soaked for a total of 34 hours.

Instructions for use state use a 2% solution for 15 minutes for bacteria, yeast and enveloped viruses and a 4% solution for 60 minutes to achieve full efficacy. A 4% solution for 60 minutes was used as a higher challenge for instrument compatibility.





Before immersion



After 34 hours immersion

parkell[®]

Comfort Grip™ Universal 30K Insert (DCG30Uni-PF)



Before immersion



After 34 hours immersion

parkell[®]

30K Comfort Grip™ Triple Bend Insert (DCG30Tri-PF)





Before immersion



After 34 hours immersion

DIRECTA

Luxator® Peritome Extraction Instruments: Stainless steel, polyamide PA6.6.

Luxator, 3mm, straight blade, grey (L3S)



Before immersion



After 34 hours immersion

DIRECTA

Luxator, 5mm, curved blade, brown (L5C)





Handle for Endo Retractor
(7571)



Not immersed

After 34 hours



Apicectomy Retractor
(7531)

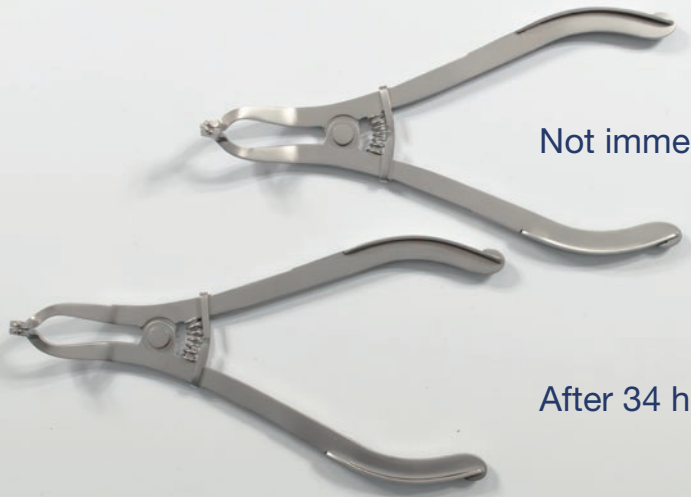


Not immersed

After 34 hours



Rubberdam Clamp forceps,
Ivory (4184)



Not immersed

After 34 hours



Tensioning Tweezer
(7225)



Not immersed

After 34 hours

Not immersed



After 34 hours



Micro Scissor, Castroviejo
(7678)

Not immersed



After 34 hours



TC-needle Holder,
Castroviejo Trinovo (7660)

Not immersed



After 34 hours



Root-Forceps, Stieglitz
(4170)

Not immersed



After 34 hours



Needle Holders with TC,
Microvascular (4583)



Scalpel Blade Holder,
Trinovo (7231)

Not immersed



After 34 hours



Holder for Scalpel Blades,
Trinovo (7693)

Not immersed



After 34 hours



Handle for Micro Scalpel
Blades, Trinovo (6789)

Not immersed



After 34 hours



PA-curettes Lucas, Trinovo
(7658)

Not immersed



After 34 hours

Not immersed



After 34 hours



Granulation Tissue Instrument 0.4mm (3306)

Not immersed



After 34 hours



Granulation Tissue Instrument 0.2mm (3305)

Not immersed



After 34 hours



Mouth Mirror Handle (9218)

Not immersed



After 34 hours



Dr Terauchi Guttapercha Removal Instrument, EGPR-U/D, 18 mm, Trinovo (8425)



Plugger 3/4 (100/120),
5-10-15-20 (9208)



Not immersed



After 34 hours



Perio Probe CP12/CP15
(9212)



Not immersed



After 34 hours



Micro Plugger D2
(9204)



Not immersed



After 34 hours



Magicut Scissor, Metzenbaum,
14.5cm (6984)



Not immersed



After 34 hours

Not immersed



After 34 hours



Tweezers, Perry, 13cm
(4075)

Not immersed



After 34 hours



Micro Scissors, 17.5cm
(8702)

Not immersed



After 34 hours



Mouth Mirror, Rhodium
(9575)

Not immersed



After 34 hours



Retractor Blade KRB2/15
(8468)



Mini Mouth Mirror Rhodium
12mm (8396)



Micro Mirror, Endoblack,
5mm (6413-cc)



Not immersed



After 34 hours



Not immersed



After 34 hours

Results and conclusion

No signs of incompatibility were observed in any of the instruments after 34 hours of soaking. No discolouration, tarnishing, rusting, fading or cracking was observed.

According to this test the instruments and equipment showed no deterioration or discolouration when repeatedly immersed in Bossklein IDactiv Instrument Disinfectant, when used as recommended by the manufacturer at the highest concentration.

Bossklein IDactiv Instrument Disinfectant is approved for use with instruments and equipment composed of materials listed opposite.

- 455 Stainless steel
- Polyether ether ketone
- Ceramic coated stainless steel
- Teflon
- Diamond-like carbon
- Titanium
- Gold plating
- Titanium nitride
- Polyamide PA6.6
- Tungsten carbide

- ✓ **NO rust**
- ✓ **NO discolouration**
- ✓ **NO fading**
- ✓ **NO cracking**

34h

Total Soaking

4%

Concentration

9

Days