

Corrosion effects of Medical- Interporous-TM

Method:

Small orthodontic parts of the following alloys were embedded on one side in epoxy to stimulate crevice corrosion. The parts were then placed in a solution of Medical-Interporous tablets, whereby each solution consisted of one tablet dissolved in 80 ml of water and contained a collection of various metal parts. The solutions were stored at room temperature for one month and then at 55°C for a further three months. In this case the solutions themselves were not analysed, only the surfaces of the metal parts examined microscopically for traces of corrosion. The following alloys from the company Dentaureum were tested:

Steel 1.010
Steel 1.008
Steel 1.013
Steel 1.011
Rermanium Dentaflex 1.003
Rematitan 3.200
Remaloy 3.000

Results of the microscopic examination:

The individual metal parts were magnified up to 125 times and examined under oblique lighting, then compared with untreated parts. No traces of corrosion could be ascertained on any of the metal parts. Even the tarnished areas around the laser marking on the molar bands remained unchanged. As in an earlier test with various denture cleanser tablets, differences in the surface structure of the various parts could also be found here. However, for technical reasons no microscopic photos could be made during this test. Had some been made, they would not differ from those shown in report no. 23 dated May 21, 2002.

Conclusion:

Using various alloys the corrosion effect of Medical-Interporous tablets was tested over a period of three months at a temperature of 50°C. The microscopic examination of the metal surfaces indicated no increased corrosion for any of the alloys tested.