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INCOMET S.R.L.
Mr. Massimiliano Presotto

VIA ABRUZZI 10

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Dear Mr. Massimiliano Presotto

We tested 8 crown samples plus 2 three-unit-bridges of your alloy *K520* with our porcelain VITA VM13 and want to communicate the result to you.

We would like to inform you about the results of our measurements of the coefficient of thermal expansion with your alloy which are specified in table 1:

| <i>Alloy</i> | CTE (25-500°C) measured | CTE (25-500°C) your data |
|--------------|----------------------------|-----------------------------|
| <i>K520</i> | 13,055 | 13,6 |

K520 was veneered after sandblasting (50 µm at 3bar pressure) under normal cooling. There were no problems in the veneering process with VITA VM13.

The thermal shock behaviour showed the following results:

| <i>K520</i> | T=105°C | T=120°C | T=135°C | T=150°C | T=165°C | > 165°C |
|-------------------------------|---------|---------|---------|---------|---------|---------|
| VITA VM13 (normal cooling) | | | | 1B | 1B, 2F | 6F |

B = three-unit-bridge, F= anterior crown

We think these are excellent results and we will include *your alloy K520* in our list of recommended alloys.

The results are exclusively based on sample testing of veneered restorations under perfect conditions. VITA Zahnfabrik has no influence on variations in quality in different charges of the alloys and product modifications by the manufacturers.

Thermal fatigue resistance, however, also depends on the size of the object, structure, hardness, thermal conductivity of the alloy in use, percentage of old metal, casting quality and, in particular, on the firing procedure so that it can not be concluded that the use of the alloys listed will always ensure perfect results.