**OBJECTIVES**

Evaluate the effect of chlorhexidine loading on microhardness and flexural strength of acrylic reline resins after a thermal ageing process.

**MATERIALS AND METHODS**

<table>
<thead>
<tr>
<th>ACRYLIC RESINS</th>
<th>Kooliner (K)</th>
<th>Ufi Gel Hard (U)</th>
<th>Probase Cold (PC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPERIMENTAL GROUPS</td>
<td>n=8</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5%</td>
<td>2.5%</td>
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<tr>
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<td>5%</td>
<td>5%</td>
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</tr>
<tr>
<td></td>
<td>7.5%</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>(w/w)</td>
<td>(w/w)</td>
</tr>
</tbody>
</table>

**PREPARATION OF SPECIMENS**

64 x 10 x 3.3 mm
ISO 20795-1:2013

**THERMAL AGEING**

Thermocycling machine
1000 cycles of thermal fluctuations
1 month of oral environment

**MATERIALS**

- ACRYLIC RESINS
  - Kooliner (K)
  - Ufi Gel Hard (U)
  - Probase Cold (PC)

**EXPERIMENTAL GROUPS**

- n=8

**CHX Diacetate Monohydrate**

**FLEXURAL STRENGTH**

Universal Testing Machine
- Instron
- 3-point device
- 5 mm/min crosshead speed
- 50 mm distance between supports

**RESULTS**

**MICROHARDNESS**

- Kooliner
- Ufi Gel Hard
- Probase Cold

**FLEXURAL STRENGTH**

- Kooliner
- Ufi Gel Hard
- Probase Cold

**CONCLUSION**

After a thermal ageing equivalent to one month of oral environment,

- Loading with a concentration of CHX does not negatively affect the microhardness values of the three acrylic resins.
- In Kooliner and Ufi Gel Hard, the chlorhexidine loading didn’t evidence a negative impact on their flexural strength.
- However, a concentration of 5% CHX in Probase Cold diminished flexural strength.

**ACKNOWLEDGEMENTS**

INSIGHTS ON CHLORHEXIDINE LOADED ACRYLIC RESINS AFTER AGEING

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**REFERENCES**