MTA-Fillapex
Bioceramic Root Canal Sealer
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• Biocompatible: fast tissue recovery without causing inflammatory reaction;
• High radiopacity: great radiographic visualization;
• Excellent flow: allows filling of accessory canals;
• Release of Ca\(^{2+}\) formation: helps in the quickly recovery of bone and cementum formation;
• Adequate working time: allows its use by endodontists and general practitioner
• Resin-based: easy to remove with gutta-percha solvents.

PRESENTATIONS

826: Tubes (30g) packing with 1 tube of base paste (18g), 1 tube of catalyst paste (12g) and 1 mixing block.
827: Syringe (4g) packing with 1 syringe (4g), 15 self-mixing tips and 1 mixing block.
828: Tubes (12g) packing with 1 tube of base paste (7.2g), 1 tube of catalyst paste (4.8g) and 1 mixing block; 158 - Pack with 10 automixing tips.
8270: Syringe (4g) packing with 1 syringe (4g), 15 intracanal self-mixing tips and 1 mixing block.
Sealing of root canals

MTA-Fillapex shows an optimized flow. It provides excellent filling and sealing of the main and lateral canals, as shown below.

<table>
<thead>
<tr>
<th>Flow</th>
<th>ISO 6876:2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA-FILLAPEX</td>
<td>≥17 mm (average diameter)</td>
</tr>
<tr>
<td>21.11 (average diameter)</td>
<td></td>
</tr>
</tbody>
</table>

Flow rate: 21.11mm - allows the filling of accessory channels
(SPINONELLI RAMOS, C.A, DDS, MS, PhD)

Film Thickness

<table>
<thead>
<tr>
<th>MTA-FILLAPEX</th>
<th>SUGGESTED ISO 6876:2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.00µm*</td>
<td>≤50 µm</td>
</tr>
</tbody>
</table>

* Proves its high filling capacity, even in secondary and accessory canals.
Solubility
According to the ISO recommendations after the solubility test, the weight difference between the initial and final Petri plate weights (where the samples were stored), represents how much the material solubilized. This value should not exceed 3%.

<table>
<thead>
<tr>
<th>MTA-FILLAPEX</th>
<th>ISO 6876:2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.07%</td>
<td>≤3%</td>
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</tbody>
</table>

Conclusion:
The material showed a variation of 0.1%, after submission to the phenomenon of solubility, a value lower than the maximal variation accepted by ISO which is 3%.*

*Center for the Development and Control of Biomaterials UFPel (Brazil)

MTA-FILLAPEX presented solubility of 0.07 (± 0.03) %. As expected, the solubility was determined in accordance with EN ISO 6876:2012, did not exceed 3% by mass and show no disintegration, when observed visually.

Radiopacity
The sealer, when tested, shall have a radiopacity equivalent to not less than 3 mm (ISO 6876:2012). MTA-Fillapex® presented radiopacity of 4-5 mm compared to Al scale.

Working Time - 23 minutes
The obtained time is perfectly adequate to follow all steps of the endodontic filling technique, especially in cases of teeth with multiple root canals.

Setting Time
ISO does not show a specific time for materials that exceed 30 minutes in their setting times, so the only requirement is that this should be evaluated and reported by the manufacturer.

MTA-Fillapex showed average setting time until 150 minutes (2 hours and 30 minutes).