INDICATIONS
• Obturation of root canals together with gutta-percha points.

PROPERTIES
• Extremely High radiopacity.
• Excellent wetability and flow properties.
• Outstanding sealing ability.
• IABT Antibacterial technology.
• Non-cytotoxic.
• Long-term stability.
• Moderate flexibility that prevents cracking of fully cured material.
• Low shrinkage.
• Automix Syringe - Saves application time; guarantees consistent mix.

TECHNICAL DATA
BJM RCS will set within 48 hours at 37°C
Shelf Life 2 Years

SCIENTIFIC PAPERS
1. Antibacterial mechanism of novel endodontic sealer, D. Kesler Shvero, N. Zaltsman, E. Weiss, N. Beyth, Hadassah School of Dental Medicine, Hebrew University, IADR Israeli Division Meeting, Tel-Aviv, June 2013.

PACKAGING & ORDER INFORMATION
• Item # 400200
  1 Automix Syringe 5 ml of BJM RCS
  10 Automix Syringe Mix Tips and Inta Oral Tips
  1 Mixing Pad

IABT incorporation into dental polymers prevents bacterial growth and biofilm formation.
Session Title: 0219
Antibiofilm Activity of Epoxy Sealer With Quaternary Ammonium Macromolecule

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Abstract:

Objectives: This study evaluated the in vitro antibacterial effect of Epoxy sealer, BJM ROOT CANAL SEALER® (BJM Laboratories Ltd., Or-Yehuda, Israel), incorporated with quaternary Ammonium macromolecule (BIOSAFE HM4100, BIOSAFE Inc., Pittsburg, PA, USA) against existing biofilm of Enterococcus faecalis and its ability to inhibit de-novo biofilm formation of Enterococcus faecalis.

Methods: Six mm diameter discs (3mm thickness) of epoxy sealer (BJM) incorporated with various concentrations of immobilized Ammonium particles (0.4, 0.8, 1.6, and 3.3% w/v) or without any addition (as control), were prepared. Antibacterial effect of the above discs on de-novo biofilm formation (E. faecalis) was tested by Biofilm Formation assay. Antibacterial effect of the discs on existing biofilm was tested by Biofilm Viability assay. The Live/Dead bacterial ratio was determined using fluorescence microscopy.

Results: Biofilm Formation assay showed significant reductions in de-novo biofilm formation of 25 and 72% in the higher Ammonium particle concentrations of 1.6 and 3.3% w/v respectively (p<0.001 for both). Biofilm Viability assay showed significant reductions in existing biofilm viability of 20 and 36% in the higher Ammonium particle concentrations of 1.6 and 3.3% w/v respectively (p<0.001 for both).

Conclusions: Quaternary Ammonium macromolecule incorporated in epoxy root canal sealer discs showed a pronounced reduction of de-novo biofilm formation in the higher concentrations (1.6 and 3.3% w/v), as well as some antibacterial effect against existing biofilm of E. faecalis. This may be effective for prevention of de-novo formation of bacterial biofilm in treated root canals.

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