

# SCIENTIFIC REPORT

## VOCO Ionofil Molar AC – Strength

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The transverse strength and fatigue fracture behaviour of VOCO Ionofil Molar AC were analysed at the University of Erlangen (Germany).

### 4-point transverse strength analysis

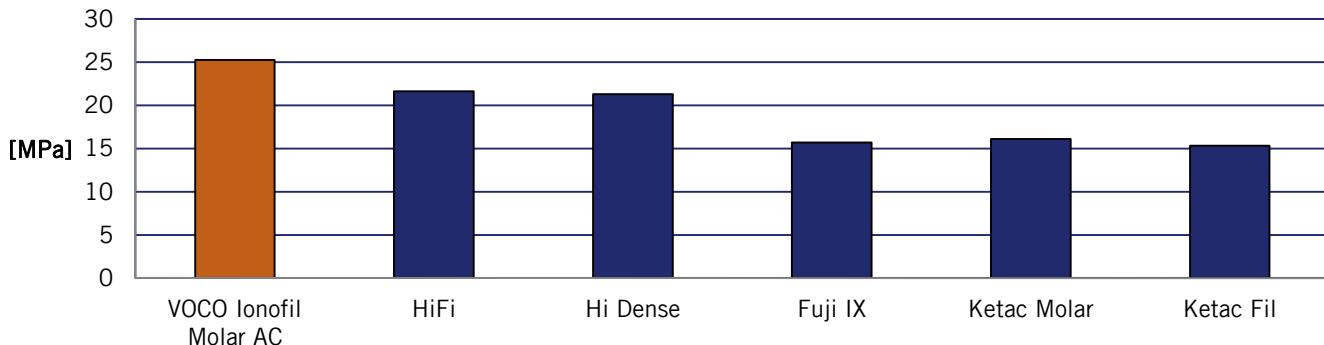


Figure 1: 4-point transverse strength [MPa]

### Analysis of the fatigue fracture behavior

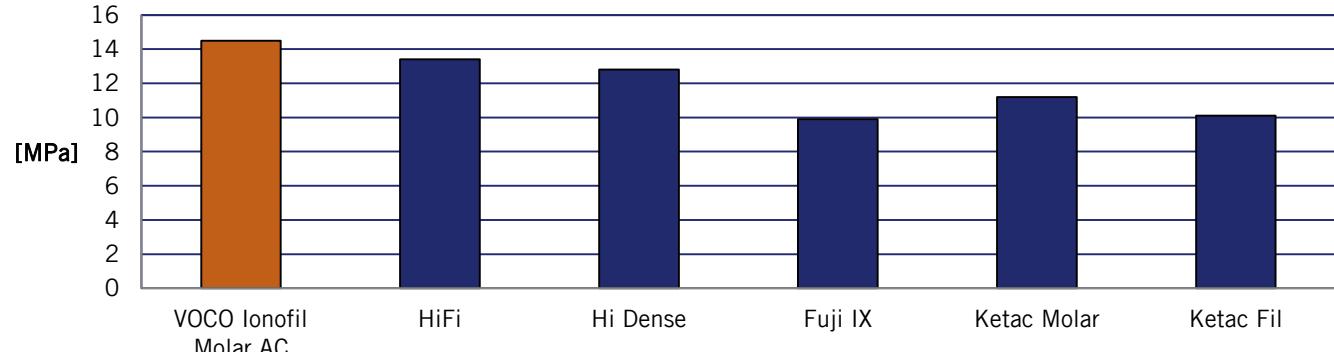


Figure 2: Fatigue fracture behaviour after 50,000 loading cycles [MPa]

Conclusion: VOCO Ionofil Molar AC exhibited the best results in fatigue and transverse behaviour in the long-term loading tests in comparison to all of the tested competing preparations. VOCO Ionofil Molar AC exhibited the highest value of all of the tested glass ionomer cements in the fatigue limit. The co-action of the stability value and fatigue limit stands for a durable, loadable material.

[1] R. Frankenberger, N. Krämer, A. Graf, J. Sindel; Universität Erlangen, DGZ/DGZMK Tagung Bremen 1998.