

ActiveMemory™

Restore Shape and Elastic Forces

4D Aligner™

ActiveMemory™ Polymer

The Science of Smart Aligners

- Precision
- Predictability
- Unmatched Performance

What is ActiveMemory™?

ActiveMemory™ Polymers (AMP) have the ability to return to their original shape and obtain initial force when activated by external stimuli such as heat.

- **Self-restoring**

99.4% shape recovery (within $\pm 0.1\text{mm}$) with heat excitation.

- **Stable in the Mouth**

Designed to stay rigid at body temperature but respond to heat for adjustments.

How It Works?

ActiveMemory™ aligners have two key parts:



"Memory" Framework:

Holds the aligner's original shape (like a skeleton).



Flexible Segments:

Solidify the shape of the aligner at lower temperature to teeth movement. Respond to heat and yield to "Memory" Framework at higher temperatures.

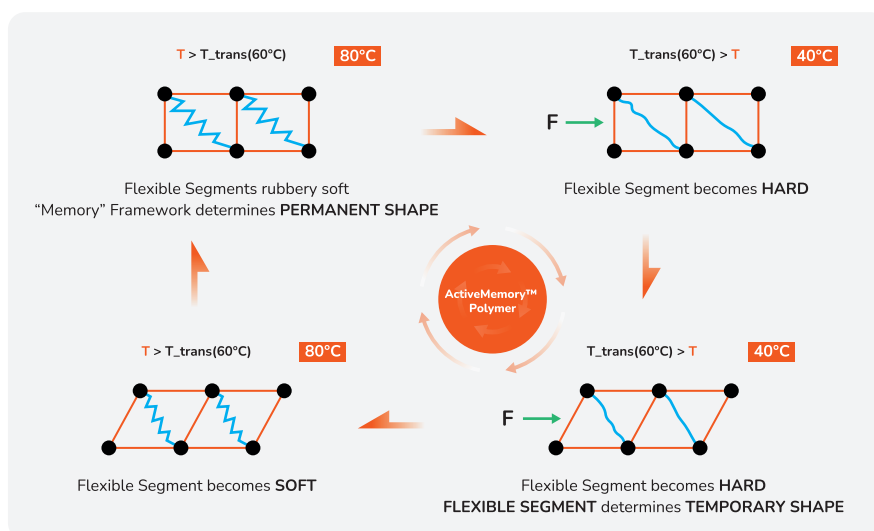
- **At Intraoral Temperature**

Flexible segments stiffen, applying gentle, steady pressure to teeth.

- **When Heated (e.g., with warm water)**

Flexible segments soften, allowing the aligner to snap back to its original shape.

This ensures consistent force delivery and reduces the need for mid-treatment corrections.



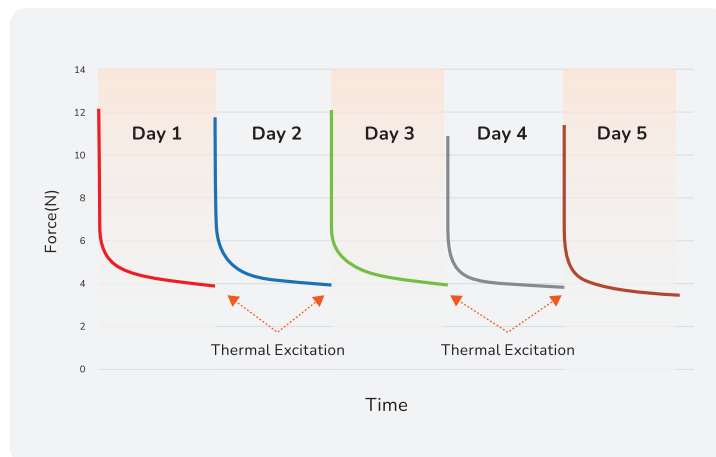
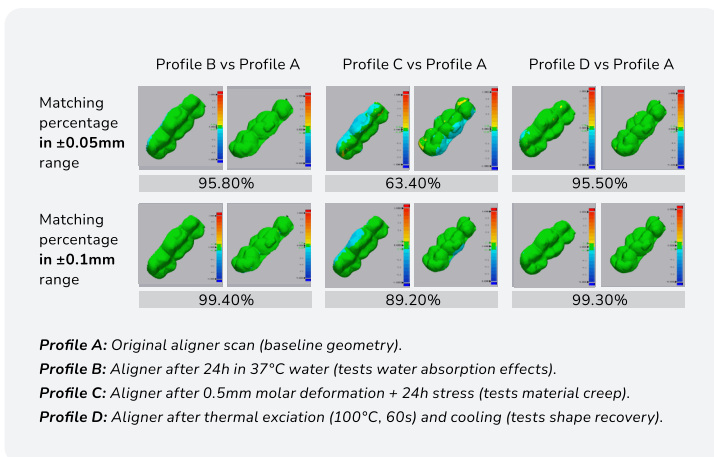
Why Does ActiveMemory™ Matter in Clinical Practice?

• Superior Shape Retention and Force Sustainability:

AMP aligners restore to their original shape upon thermal excitation and provide sustained orthodontic forces over time, making the aligner treatment more precise for less refinements.

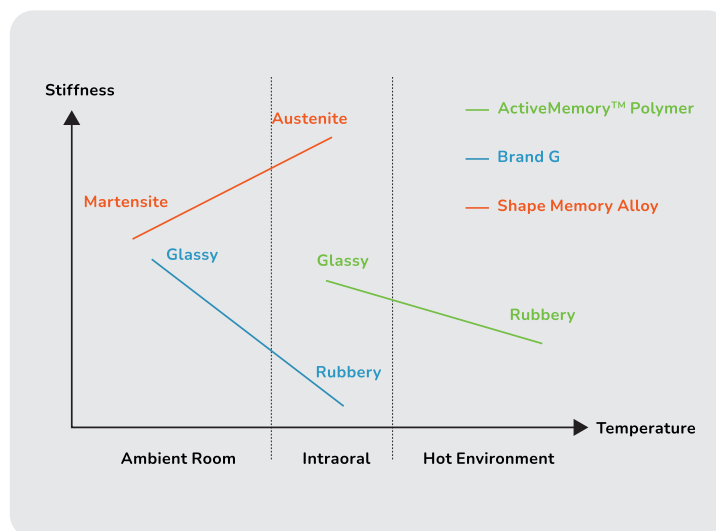
• Improved Fit and Reduced Need for Attachments:

Direct 3D printing with these materials ensures a precise fit and minimizes reliance on attachments, simplifying treatment and enhancing patient comfort.



ActiveMemory™ Polymer VS Conventional Shape Memory Polymer

Feature	Brand G Aligner	LuxCreo ActiveMemory™ Polymer
Glass Transition Temperature	Intraoral temperature	>100°C
Heat Deflection Temperature	Below intraoral temperature	>70°C
Elastic Modulus in Mouth (37°C)	Low (material softened)	High (little decay in properties)
Treatment Force in Practice	Low and relaxed	Sufficient and sustained
Accuracy after Shape Memory	Unpredictable	Guaranteed



Experience the Difference

Request a Demo

See ActiveMemory™ Polymer in action and learn how it can benefit your practice.

Contact Us

Speak with a LuxCreo specialist to discuss your needs and place an order.

Visit Our Website

Learn more about LuxCreo and our full range of orthodontic solutions.

**SIGN-UP
NOW!**

