ZENDURA | FLX®

CLEAR ALIGNER MATERIAL

ENGINEERED FOR COMFORT & PERFORMANCE.

www.zenduradental.com

ZENDURA® DENTAL

FIRST DUAL-SHELL MATERIAL FOR CLEAR ALIGNERS

DESIGNED TO DELIVER CONSISTENT FORCES WHILE ENHANCING PATIENT COMFORT[2]

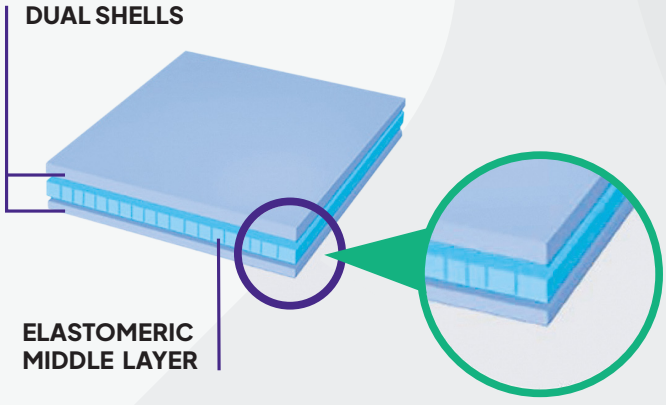
Zendura FLX is a premium, multilayer aligner material designed to deliver consistent forces while enhancing patient comfort in orthodontic treatment. Its proprietary trilaminate structure combines a resilient elastomeric core with durable outer layers, delivering higher force retention and controlled tooth movement[1].

Up to
150% improved force retention
compared to tested monolayer materials

40% lower initial force**

High crack resistance based on tear strength data

Ultra-clarity* (99%)
High transparency



Two thin outer layers provide rigidity and force, while the inner elastomeric layer aids in patient comfort and flexibility.

RESULT: ENGINEERED FOR PATIENT COMFORT AND CONSISTENT FORCE DELIVERY.

** Compared to tested materials.

[1] "Effective vertical movement requires not only elasticity but also sufficient impact strength to resist deformation caused by vertical occlusal forces. Zendura FLX's hard outer shell provides the necessary strength to withstand these forces, while its inner elastic core allows for controlled tooth movement".

Shukor NM, Shahrul AI, Norman NH (2025). Comparison of horizontal and vertical tooth movements in Erkodur vs Zendura FLX clear aligners. Arch Orofac Sci, 20(1): 29-41.

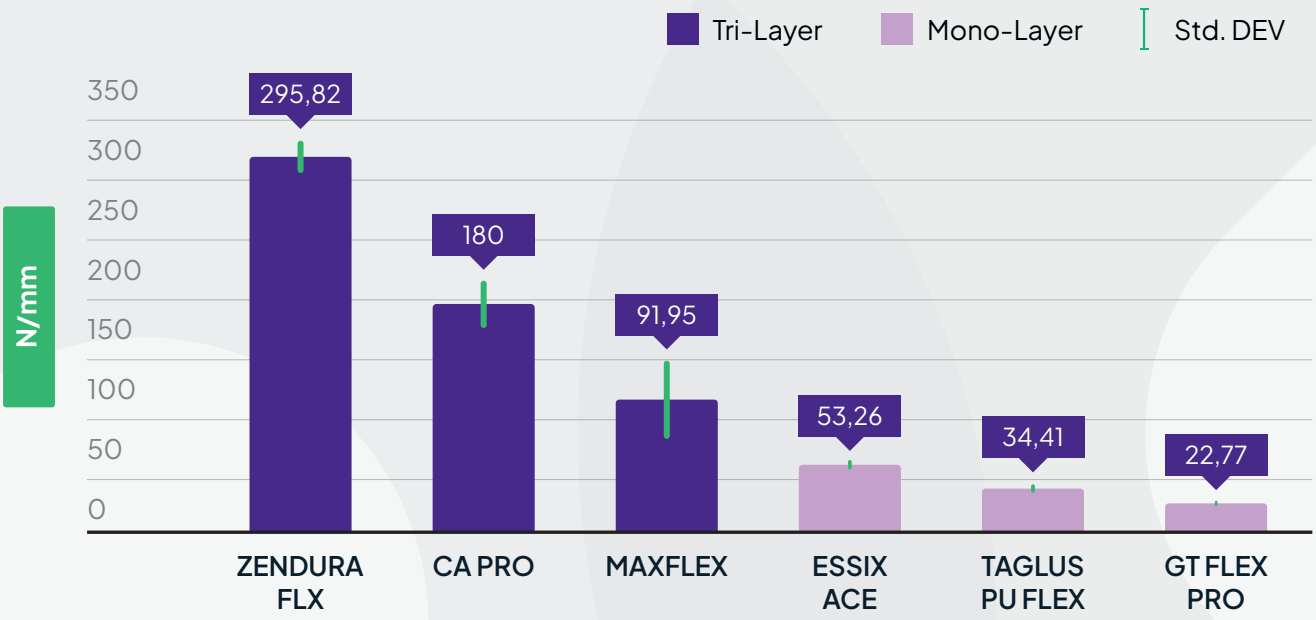
ZENDURA DENTAL

TEAR STRENGTH

Zendura FLX offers higher tear strength compared to tested materials, particularly monolayer thermoplastics. This enhanced tear strength translates to greater resistance to cracking.

Tear Strength of Thermoformed Aligner Materials*

14 samples preconditioned in artificial saliva at **37°C for 24 hours**



With an average tear strength of 295.82 N/mm, Zendura FLX is:

64% higher than CA Pro

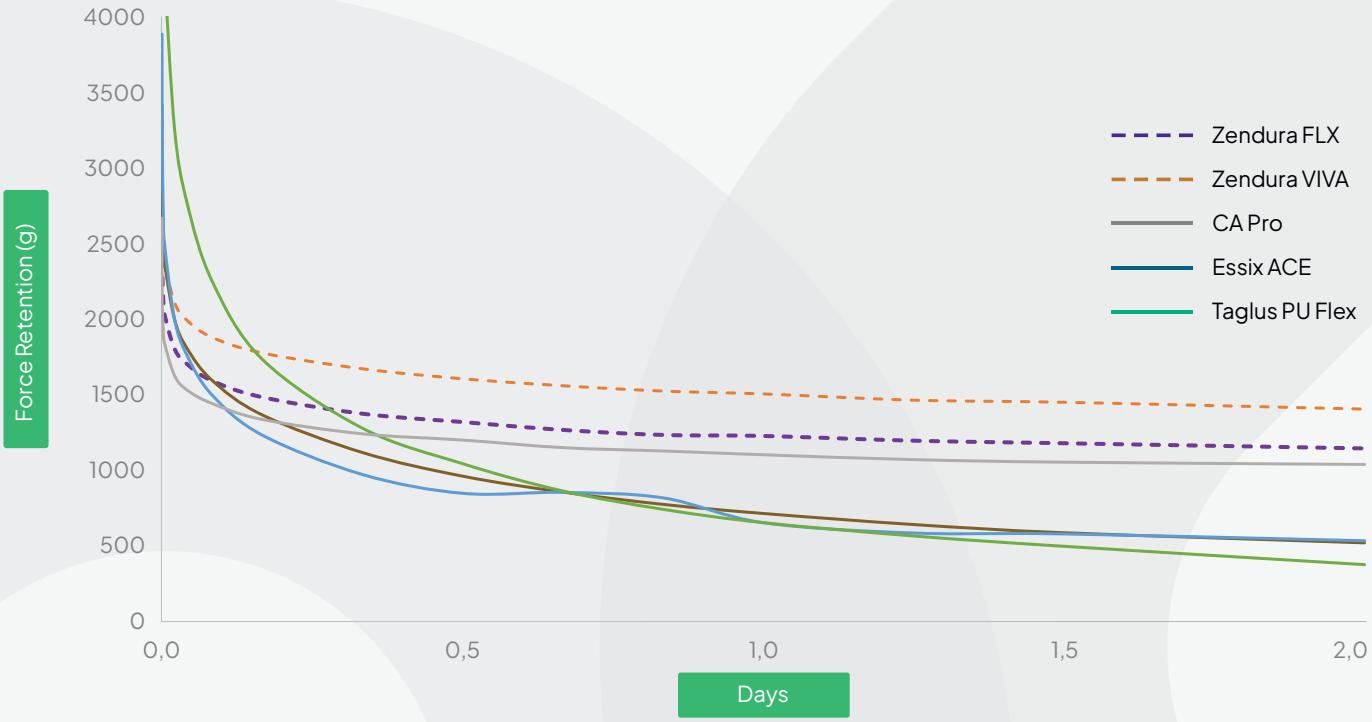
250% higher than MaxFlex

500% higher than Essix ACE

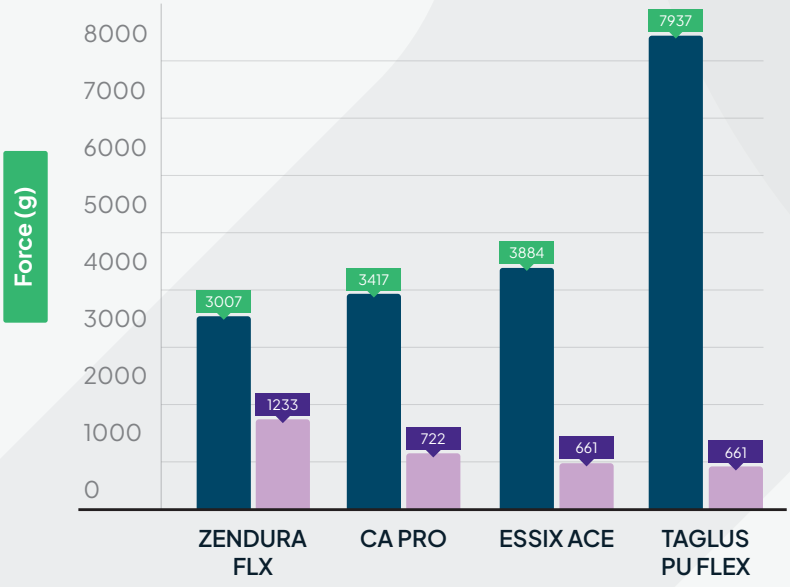
CA Pro & Duran are trademarks of Scheu-Dental GMBH. MaxFlex is a trademark of Shanghai MaxFlex Technology. Essix is a trademark of Dentsply Sirona. Taglus is a trademark of Laxmi Dental. GT Flex a is trademark of GoodFit Technologies, LLC.

FORCE RETENTION

Force Retention refers to a material's ability to maintain force over time. Tested thermoplastics experienced a rapid force drop within the first few hours, leaving insufficient force for the intended wear period. Zendura FLX is engineered differently—it starts with lower initial forces and retains them significantly better than competing materials*, ensuring consistent performance and force delivery.



Force: Initial vs 24 Hour*



FEATURES AND BENEFITS

At **time zero**, Zendura FLX starts with an initial force which is **lower than CA Pro, Essix Ace, and Taglus PU Flex.**

Zendura FLX retains force more effectively than tested competitors over time. It starts with a lower initial force and also drops the least after 24 hours.

Lower initial force means **less insertion stress on teeth,** which typically translates to greater patient comfort[2].

Despite the lower starting force, Zendura FLX maintains excellent force retention over time (56.8%), supporting tooth movement without compromising comfort[2].

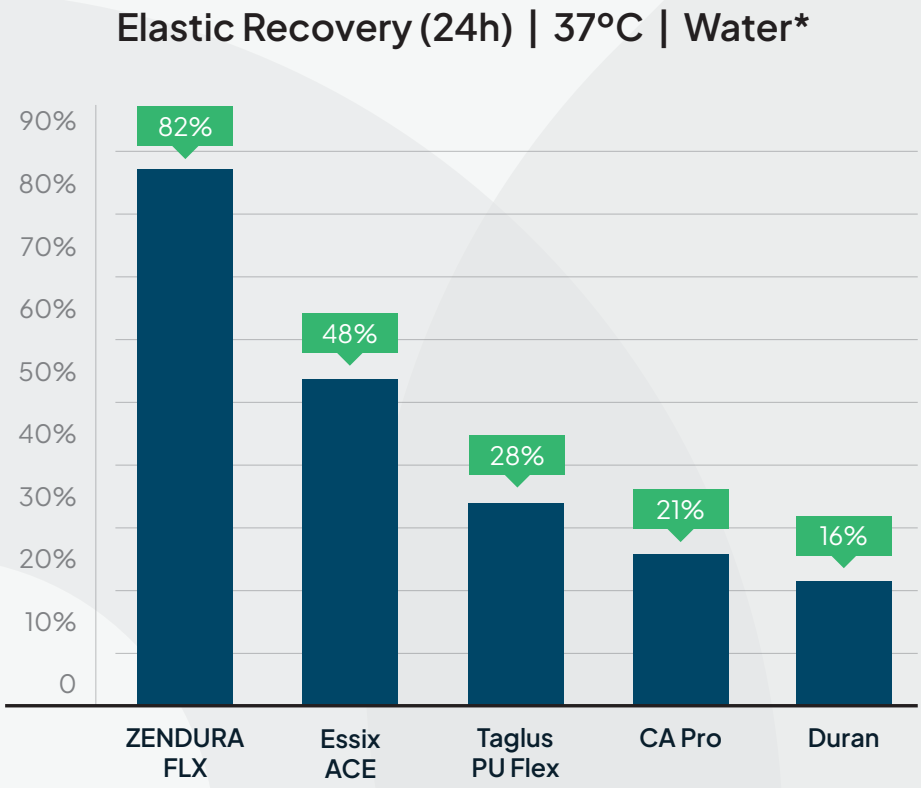
* Internal benchtop data – available upon request.

[2] "The force generated by aligners is influenced by both the aligner material and the direction of movement. Multi-layer materials exhibit superior performance compared to single-layer materials, primarily because of their lower initial force, which enhances patient comfort, and their capability to maintain consistent force application even after undergoing ageing".

Elshazly TM, Bourauel C, Ismail AM, Ghoraba O, Chavanne P, Elattar H, Alhotan A. Effect of thermomechanical ageing on force transmission by orthodontic aligners made of different thermoformed materials: An experimental study. Orthod Craniofac Res. 2024 Dec;27 Suppl 2

ELASTICITY

Elastic recovery is the ability of material to recover to its original shape after deformation. Zendura FLX demonstrates high elasticity indicative of its ability to retain its shape. When paired with tear strength data, Zendura FLX shows both, resistance to deformation and durability.



ZENDURA FLX®

CLEAR ALIGNER MATERIAL

SKU	Dimensions	Format	Thermoformer
9204-20	Zendura FLX	0.76 mm x 125 mm Round	20 Singles	BioStar/MiniStar/Drufomat
9231-20	Zendura FLX	0.76 mm x 120 mm Round	20 Singles	Erkopress
9232-20	Zendura FLX	0.76 mm x 125 mm Square	20 Singles	BioStar/MiniStar/Drufomat
9207	Zendura FLX	0.76 mm x 125 mm Round	Pouch with 10	BioStar/MiniStar/Drufomat
9229	Zendura FLX	0.76 mm x 125 mm Round	Pouch with 20	BioStar/MiniStar/Drufomat

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