

ACHROMAT™ ACHROMAT-HP™

Esthetic Fiber Post System



achromatic

(a-krə-'ma-tik) *adj.*

1: Possessing no hue; neutral.

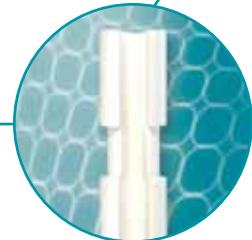
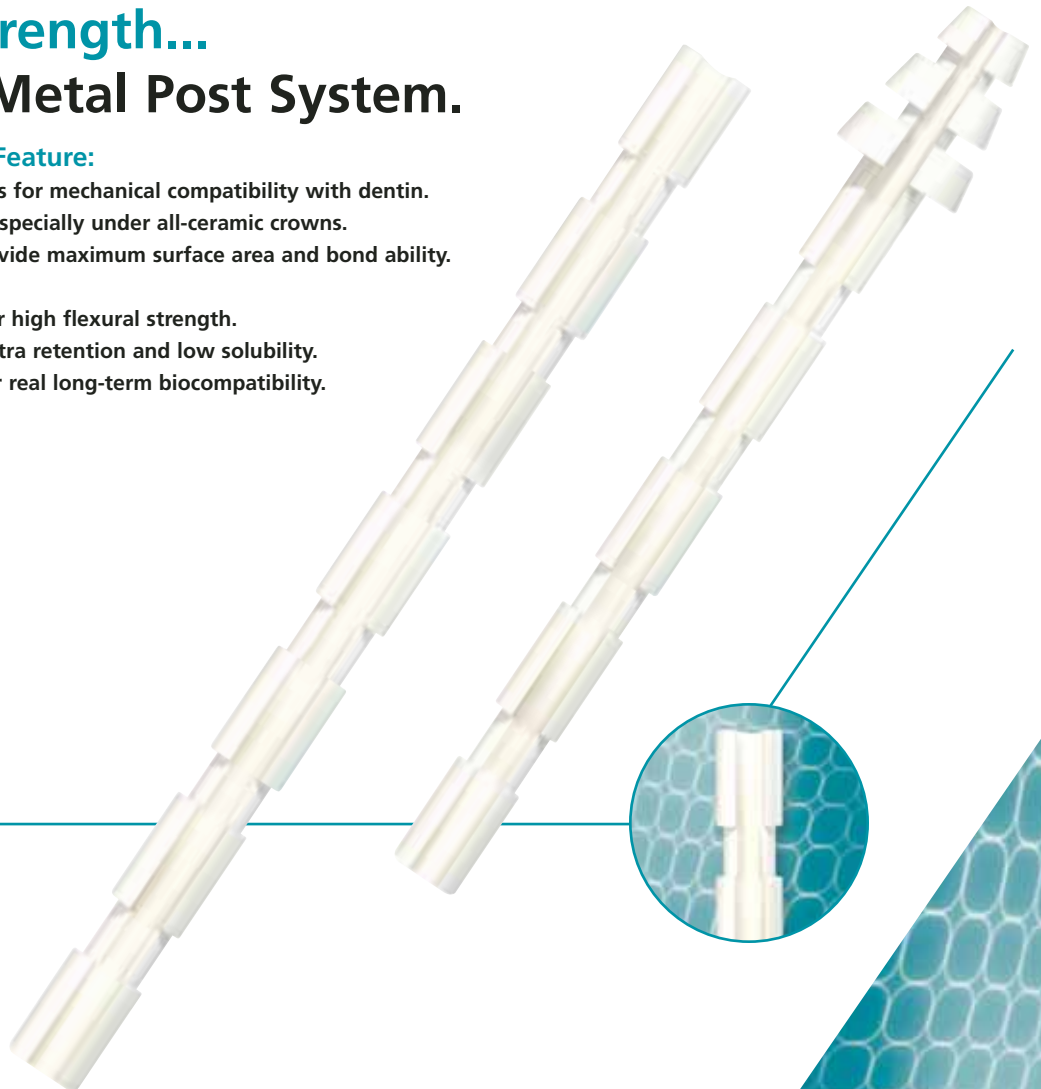
2: Designating color perceived to have zero saturation and therefore no hue.

3: Refracting light without spectral color separation.

Esthetics and Strength... Not From Your Metal Post System.

Achromat™ Esthetic Fiber Posts Feature:

- High strength and low elastic modulus for mechanical compatibility with dentin.
- Tooth-colored, for optimal esthetics, especially under all-ceramic crowns.
- Serrated and machined surface to provide maximum surface area and bond ability.
- Radiopaque, for diagnostic accuracy.
- Made of the highest-quality fibers, for high flexural strength.
- Bonded, rather than cemented, for extra retention and low solubility.
- Cannot corrode like stainless steel; for real long-term biocompatibility.
- Available in 2 styles.



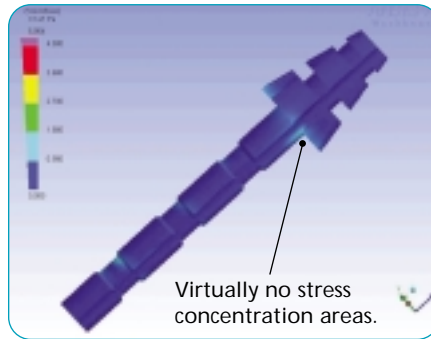
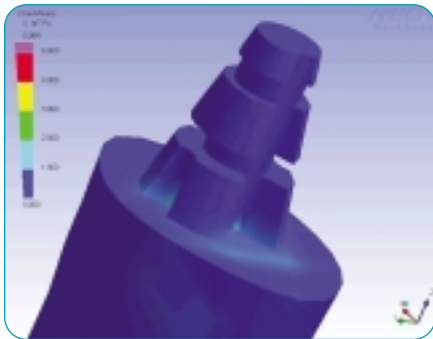
AXIS™

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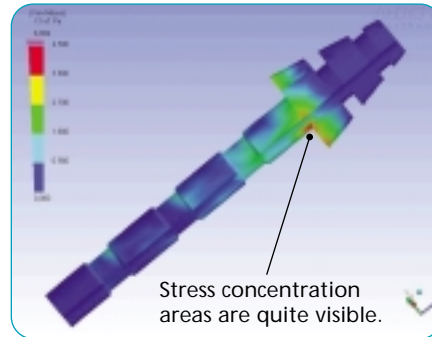
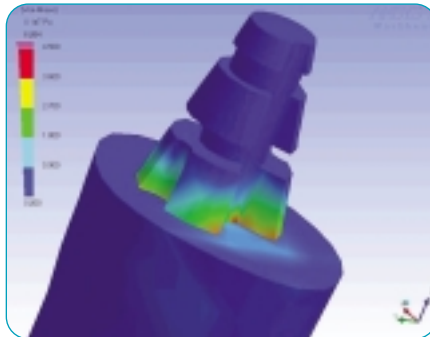
Less Stress Transfer = The Best Results.

Finite Element Analysis (FEA), using computer programs, permits prediction of clinical behavior of the restoration technique with the variation of the characteristics of the materials being used. The greater the difference between the Young's Modulus of Elasticity (rigidity) of the dentin and the post, the more uneven the stress distribution on the dentin surfaces, resulting in the formation of *stress concentration areas* represented by **red**, **orange**, and **yellow**.

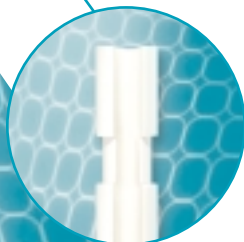
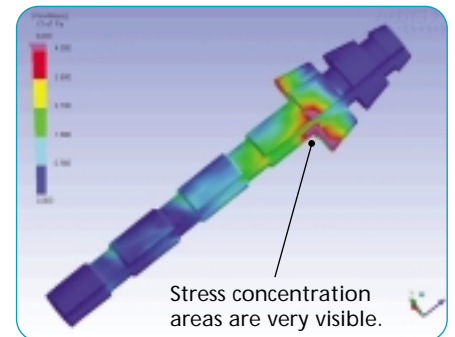
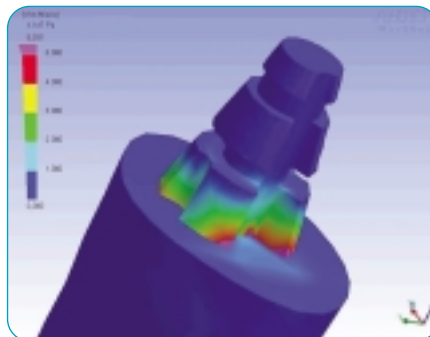
Achromat-HP™ Esthetic Fiber Post: *Same rigidity as dentin.*



Titanium Post: *5x more rigid than dentin.*



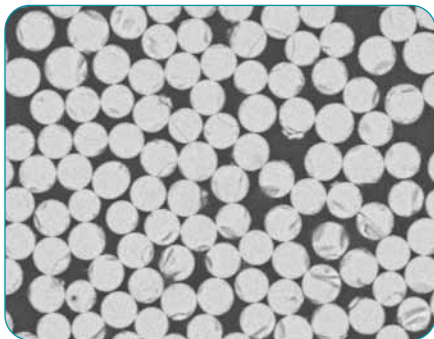
Stainless Steel Post: *10x more rigid than dentin.*



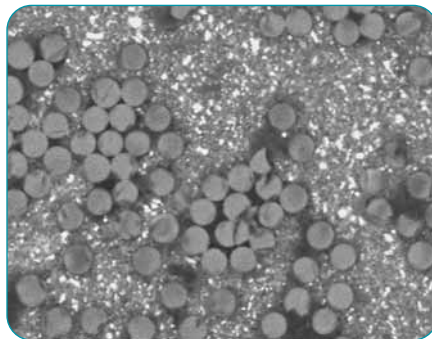
The Fibers Make the Difference.

The volume, quality and treatment of the raw fibers used directly influence the mechanical properties and performance of the post. Generally, the higher the fiber content, the greater the post's *flexural strength* and *fatigue resistance*. These are very important distinctions in clinical function and for the long-term behavior of the restoration. Note the differences below between the Achromat™ Esthetic Fiber Post and competitive posts, which also exhibit voids, resulting in a post that is not as strong.

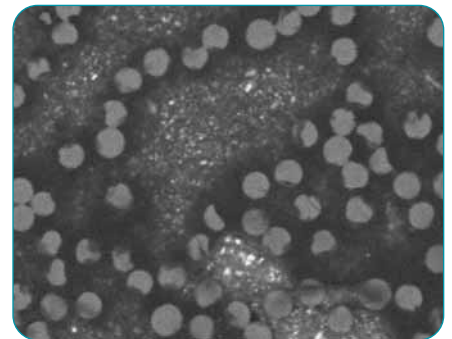
Achromat™: 65% fibers
Flexural Strength: 1600 MPa



Competitor: 42% fibers
Flexural Strength: ~970 MPa



Competitor: 42% fibers
Flexural Strength: ~970 MPa



Retention: The Purpose of the Post.

According to the textbooks, the primary purpose of a post is to retain the core/crown assembly. The Achromat™ Esthetic Fiber Post has it all. The surface of the post is machined (**Figure 1**) to provide micro-mechanical retention with adhesive bonding agents. The overall design of the Achromat™ is macro-retentive; parallel-sided, with retention rings to lock-in the resin cement and core composite (**Figure 2**). There's even a vertical vent-slot (**Figure 3**), for excess cement to escape. The Achromat-HP™ version features an "arrowhead-shaped" retention head (**Figure 3**), which creates macro-retentive undercuts to grip and hold the core material. *This "arrowhead" design head saves time and materials in the core build-up procedure.*

Figure 1

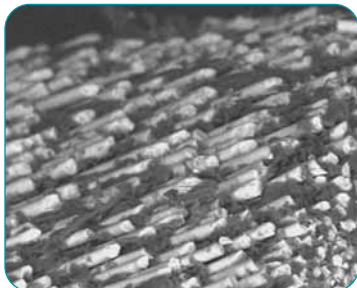


Figure 2

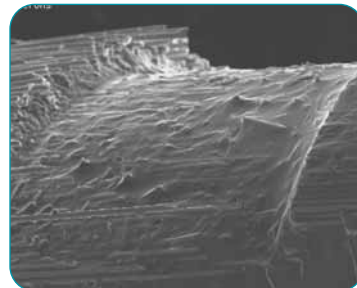
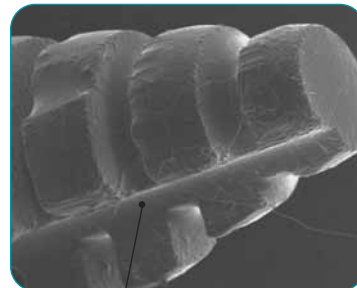
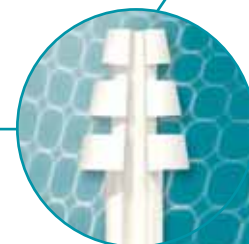


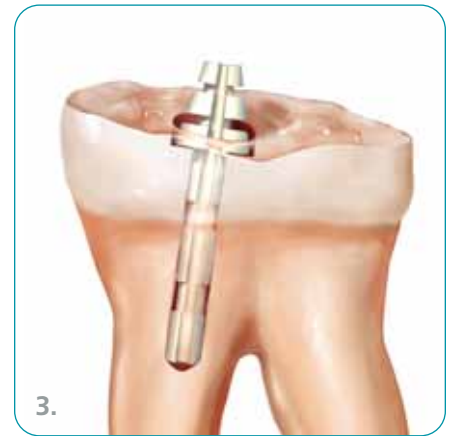
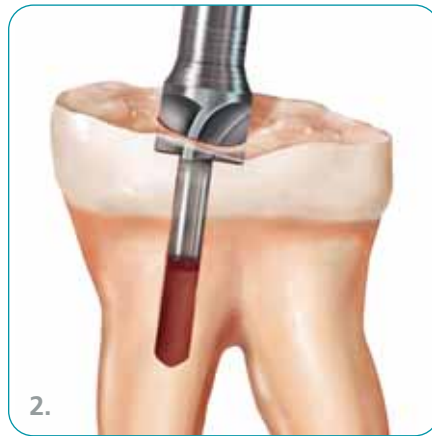
Figure 3



"Hydraulic" release allowing excess cement to escape.



Using Achromat™ Esthetic Fiber Posts:



1. Preparation of the canal shown with the appropriate Endodontic Drill to match the chosen post size.
2. If using the Achromat-HP™, with the retentive "arrowhead" design, prepare the coronal surface with the appropriate root facer to match the size of the post used to achieve a countersunk and level seating of the post.
3. Try in the post. Confirm that the base of the retentive "arrowhead" design lies flat on the pulpal floor. Proceed to bonding the post into the canal by following the manufacturer's directions for the chosen bonding product.

Achromat™

Achromat-HP™ with "Arrowhead" Design

5 per pack.

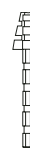
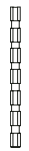


FIG. NO.	FP-NH1.35	FP-NH1.60	FP-H1.15	FP-H1.35	FP-H1.60
POST DIA. (mm)	1.35	1.60	1.15	1.35	1.60
HEAD DIA. (mm)	--	--	2.5	3.0	4.0
	●	●	●	●	●

FP-NHINTRO Achromat™ Introductory Set - Contains: 10 posts (5 of each), 2 NTI Endo Drills (1 of each)



FP-HINTRO Achromat-HP™ Introductory Set - Contains: 15 posts (5 of each), 3 NTI Root Facers (1 of each), 3 NTI Endo Drills (1 of each)

NTI Endodontic Drills

3 per pack.



FIG. NO.	ER-1.20	ER-1.40	ER-1.65
DRILL DIA. (mm)	1.20	1.4	1.65
LENGTH (mm)	16.0	16.0	16.0
RA (21)	●	●	●

ER-ASST NTI Endodontic Drill Assortment Set - Contains: 3 NTI Endodontic Drills (1 of each size)

NTI Endodontic Root Facers

3 per pack.



FIG. NO.	ERF-1.10	ERF-1.30	ERF-1.55
GUIDE DIA. (mm)	1.1	1.3	1.55
HEAD DIA. (mm)	3.0	3.5	4.5
RA (21)	●	●	●

ERF-ASST NTI Endodontic Root Facer Assortment Set - Contains: 3 NTI Endodontic Root Facers (1 of each size)

AXIS Dental also offers a full line of NTI Gates Drills and NTI Peeso Reamers.



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