

D.T. LIGHT-POST®

Translucent quartz fiber

DOUBLE-TAPER FIBER POST

The first post designed by the tooth

- RADIOPAQUE
- RELIABLE
- AESTHETIC
- EASY TO USE





A pioneer in endodontic rehabilitation

Established in 1968 by Dr. Marc Reynaud, RTD developed and commercialised the fibre post and is the worldwide leader in this field. RTD is certified ISO 9001 / ISO 13485, employs engineers, technicians and chemists, and is also protected by numerous patents.

From our facilities in the "high-tech corridor" of Grenoble, France, over 95% of RTD's production is exported to over 70 countries, and enjoys market leadership in most of those countries.

RTD posts have been independently tested and described in the dental literature over 75 times, and are used and taught in dental schools on every continent.

Patents :

EP 1 115 349 & EP 0 432 001

US 5 328 372 & US 5 890 904

And patents pending

A caring, complete control of the process:

from the manufacturing of the raw material to the final grinding of the post.

RTD is the originator of the fibre reinforced endodontic post. Over nearly 40 years' time, we have developed and adapted innovative materials, equipment and techniques for design, production, processing and testing of the products.

RTD is highly automated and uses computer-driven technology to maintain full in-house control over raw materials, degree of polymerisation, mechanical properties and dimensional tolerances- to name a few- on ALL our posts.

All of this helps provide RTD, our distributors, dentist customers and patients a great peace of mind, and expectations of long-term clinical success.



1. Fabrication process



2. Analysis degree of conversion



3. Flexural strength test



4. Shear Strength test



5. Computer driven grinding



6. Tolerance scanning



7. Fatigue Testing



8. User-friendly package design



D.T. LIGHT-POST®



An advanced material

No clinical root fractures, due to elastic modulus close to dentin 1, 2, 3

High strength 4 and fatigue resistance 5, provide durability

Translucency provides esthetics and light transmission 6, 7

Corrosion-free and radiopaque 8 for easy diagnostics

Superior fracture resistance 9

Advanced Design

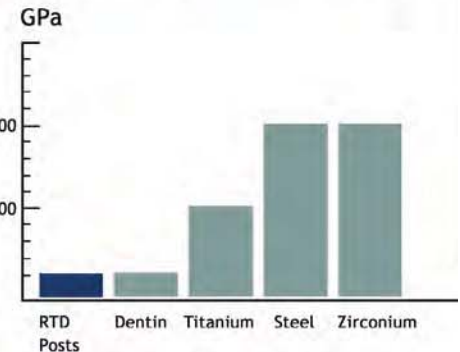
Ideal double tapered design means optimal adaptation, conservative preparation 10, 11, 12

Retention equal to, or better than, metal and other fiber posts 13, 14, 15, 16

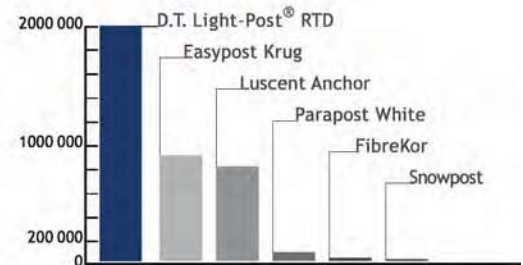
Performance is proven in clinical trials 17, 18, 19

Atraumatically removable in minutes

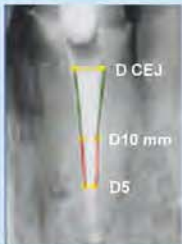
Low Elastic Modulus (Angle=30°)



Cyclic fatigue test



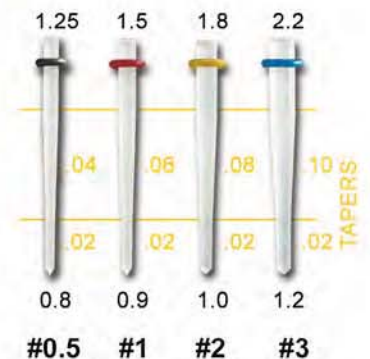
Grandini S., Goracci C., Monticelli F., Borracchini A., Ferrari M. An evaluation, using a three-point bending test, of fatigue resistance of certain fiber posts. *Il Dentista Moderno*, March, 2004, 70-74.



Developed at University of Montreal, this is the first post to adapt to the treated canal, rather than the reverse. These tapers and diameters are derived from thousands of measurements of hundreds of endodontically treated teeth.



No taper for stronger core
Variable coronal taper for superior post adaptation
Conservative apical 0.02 taper



*D.T. Light-Post® Studies

1. Cifuentes, I., Fernandez, A., Sanchez, A. and Pavlov, P. Stress Distribution Surrounding Five Endodontic Posts *J Dent Res*, Vol 83 (Spec. Iss. A) Abstract #4084 2. Cifuentes, I., Fernandez, A., Petrasic, L. et al Photoelastic stress distribution for four endodontic post systems. *J Dent Res*, Vol 84 (Spec. Iss. A) Abstract #2934, 2005 3. Shirani, F., Malekipour, M. In-vitro study of different reinforcement methods of anterior weakened teeth. *J Dent Res*, Vol 84 (Spec. Iss. A) Abstract #1732 2005 4. Galbano, G.A., Valandro, L.P., deMelo, R., Scotti, R., Bottino, M.A. Evaluation of the flexural strength of carbon fiber, quartz fiber and glass fiber based posts. *J Endod*, Vol. 31, No. 3, March 2005, 209-211 5. Grandini, S., Goracci, C., Monticelli, F., Borracchini, A., Ferrari, M. An evaluation, using a three-point bending test, of the fatigue resistance of certain fiber posts. *Il Dentista Moderno*, March, 2004, 70-74 6. Bassi, M. Light diffusion through double taper quartz-epoxy fiber posts. Proceedings from the 5th International Symposium, 21-26, 2001. 7. Sawada, N., Hikage, S., Sakaguchi, K. Shape of composite resins photopolymerized by the translucent post. *J Dent Res* (Special Issue) #2569, 2002 8. Denny, D., Heaven, T., Broome, J., Weems, R. Radiopacity of luting cements and endodontic posts. *J Dent Res*, Vol 84 (Spec. Iss. A) Abstract #0675, 2005 9. Akkayan, B., Gulmez, T.: Resistance to fracture of endodontically treated teeth restored with different post systems. *J Prosthet Dent* 2002; 87:431 10. Boudrias, P., Sakkal, S., Yulian, Anatomical Post Design Applied to Quartz Fiber/Epoxy Technology: A Conservative Approach. *Oral Health*, Nov., 2001:9-16 11. Baldissara, P., Filonzi, C., Zicari, P. and L. Ciocca. Establishing an Improved Fiber Post Shape Using a 3-D Analysis *J Dent Res*, Vol 84 (Spec. Iss. A) Abstract #0535, 2005. 12. Boudrias, P., Sakkal, S., and Petrova, Y. Anatomical post design meets quartz fiber technology: Rationale and case report. *Compendium*, 22: 337-348, 2001. 13. Qualltrough, A., Chandler, N., Purton, D. A comparison of the retention of tooth-colored posts. *Quintessence Int* 2003;34:199-201 14. Gerhardt, C.R., K. Bekes, K., Schaller, H.G. Effect of Different Fibre Post Diameters on Retentive Strength. *J Dent Res* (Special Issue A) #1586, 2006 15. Baldissara, P., Zicari, F., Melilli, D., Monaco, C. Effect of endodontic treatment on fatigue resistance of fiber post bonding. *J Dent Res*, Vol 82 IADR (Special Issue A) Abstract # 2565, 2003 16. Baldissara, P., Pieri, F., Arcidiacono, A. Fatigue resistance of fiber posts: a comparative study. *J Dent Res*, 80 IADR (Special Issue A) Abstract #1434, 2001 17. Monticelli, F., Grandini, S., Goracci, C., Ferrari, M. Clinical behavior of translucent fiber posts: a 2-year prospective study. *Int. J Prosthodont* 2003; 16:593-596 18. Grandini, S., Goracci, C., Tay, F., Grandini, R., Ferrari, M. Clinical Evaluation of the Use of Fiber Posts and Direct Resin Restorations for Endodontically Treated Teeth *Int J Prosthodont* 2005;18:399-404 19. Malferiati S, Baldissara P, Arcidiacono A. Translucent Quartz Fiber Posts: a 20 Month In vivo Study. *J Dent Res*, 81 IADR (Spec. Issue A) Abstract #2656, 2002

- Flexural strength : 1600 MPa
- Interlaminar shearing strength : 65 MPa
- Elastic modulus (30°) : 13 GPa



CLINICAL CASE

Courtesy of Dr Duret



Isolate, remove gutta

Create post space

Try-in



Trim excess length

Etch post space

Rinse. Remove water



Apply adhesive. Cure

Apply adhesive. Cure

Place CORECEM dual cure resin



Seat post

Light cure

Load CORECEM material



Place COREFORM matrix

Light-cure

Trim the core build-up

Secure, pharmaceutical-style packaging protects posts from debris & contamination.



Removable in minutes with
reaccess kit D.T. Carbide



For a first use
Intro kit with 20 posts + drills

For refills
Blister pack of
10 posts of same size



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