

REALITY

NOW

RATINGS & REVIEWS | practical • unbiased • trusted
35TH anniversary | number 314

The Ratings | Posts — Metal-Free

Splendor SAP

Manufacturer

Angelus

<http://www.angelusdental.com>

Prices

Starter Pkg

\$87.50/5 (\$17.50/post)

Refills

Posts

\$67.00/5 (\$13.40/post)

Drills

\$25.00 ea



Raves & Rants

- ✓ One size of post eliminates inventory and time to find the correct size
- ✓ Sleeve minimizes volume of cement and probably strengthens post & core
- ✗ Still may need additional sizes
- ✗ Sleeve may require additional tooth structure removal

2021

REALITY

RATINGS & REVIEWS

Four Star Award



★★★★☆ 4.4

Introduction/ Manufacturer's Claims

Fiber-reinforced post that only comes in one size, thereby solving the inventory issue and finding the right size conundrum. But wait — not all root canals are the same size. How can one size fit all?

Well, the clever folks at Angelus have come up with a two-part solution. This is the basis for the moniker SAP, an acronym for Single Adjustable Post. The first part is a tapered post made of 80% fiberglass and 20% epoxy resin. It has two, circumferential serrations in the apical third that are repeated in the coronal third.

The second part is called the sleeve, which is somewhat oval in cross section as opposed to the round post, but retains the tapered profile of the post. It has a chamber in its center that allows it to slide over the post in a precise manner and sports a narrow slot on one side evidently acting as a cement vent. The sleeve has the same composition as the post.

Most (85%) evaluators liked the concept and used the sleeve for most post & core build-ups, while the other 15% thought the concept was clever, but usually just used the post without the sleeve. Some comments:

- Actually I tried to use the post in the cases which have wide preparations. I used a similar system before. I am familiar with the system. This is my first experience with Splendor SAP.
- I found the sleeve helped it fit better – without it, the post was very thin.
- A bit hard to use, time is the problem in cementing. Really interesting product, was a must to test. Clever idea, but I can live without!
- Interesting concept but does not work all the time except in large canals.
- Large canal in lateral incisor.
- I used it on molars.
- I like this idea.
- I thought in this stale world of endo this was quite innovative.

The oval cross section of the sleeve was found to fit more postholes compared to round by 46% of the evaluators, while 38.5% thought it helped in some cases, but not in others and 15.5% would have preferred a round sleeve. One evaluator noted that despite the oval shape, it could still be rotated in order to get a stable adaptation. In addition, because of the slit, it seems it is adaptable to any post space. Another evaluator stated that the posthole is going to be rounded out during RCT, so a round sleeve may fit better.

Color

Opaque white.

Light Transmission (mm of cured composite)

0 Needs dual-cure cement.

Radiopacity

Most (69%) evaluators thought they had acceptable radiopacity, while 31% wanted more.

Sizes and Color-Coding

Post 18mm in length, 0.65mm at the apex, and 1.0mm at the coronal end.

Sleeve 12mm in length, 1.4mm at the apical end, and 2.4mm at the coronal end.

The one-size post was deemed to be acceptable and fit virtually all the time by 46% of the evaluators, while 23% found the post fit most of the time and 31% still wanted several sizes of posts. One evaluator opined that the size of the post is acceptable and can adapt in any case. The evaluator noted that the size is the most used size, the sleeve helps the post to adapt in widened post spaces, and the sleeve helps the stability of the post.

The size of the sleeve was considered to be acceptable by most (77%) evaluators, while the other 23% found it to be too large.



Drill

1 Matches the size of the post. Made of stainless steel, its circular flutes are quite sharp, which facilitates efficient and effective posthole preparation. Most (54%) evaluators were impressed with the cutting effectiveness of the drill, while the other 46% found it to be acceptable.

Use

So how does this “single adjustable post” work? The post itself is basically the same as other systems. You prep the posthole, trial seat the post, and then slide the sleeve over the post until the diameter of the posthole keeps it from moving farther in an apical direction. Cut off the excess length of the post with a diamond bur and then remove both the sleeve and post. After cleaning the posthole, post and sleeve, apply a bonding agent in the posthole as usual, inject a dual-cure cement into the posthole, seat the post and immediately slide the sleeve over the post to displace the extra volume of cement at the coronal end. If you are using a cement/core build-up material, add it freehand or with the help of a core former and light cure the material.

In terms of the strength and retention of the post & core restoration, 46% of the evaluators felt the sleeve/post combo created a stronger result, while 46% were not sure and 8% didn't think the combo was any better than just a post by itself. Some comments:

- I believe the sleeve helps the post to stay stable in the post space rather filling the post space with more cement. The failure of one size posts by time generally occurs because of the mobility of prefabricated post within the post space and because of cohesive failure of the resin cement. In this case, the sleeve keeps the main post stable and prevents the resin cement's cohesive failure. It is hard to come to a conclusion like this but I believe this property is much more important than its filling capacity.
- Was retentive even before cementing!
- It seemed more stable in the canal.
- It seems pretty brittle to me – not resilient.
- It makes it seem to be reinforced.
- I would prefer to see the concept scientifically proven.

Most (61.5%) evaluators found seating the sleeve over the post reasonably easy with only a slight learning curve, 31% thought it was easy, and 7.5% considered the learning curve to be steep.

Most (69%) evaluators used the post and sleeve virtually all the time, 15% used them about three quarters of the time, 8% used them about half of the time, and 8% used them about a quarter of the time.

No failures were reported during the evaluation period.

Packaging

The Starter package comes in a compact, cool-looking black box with sharp artwork on the front along with the contents. There is also a cutout showing the translucent-covered plastic case holding the posts, sleeves, and drill. Product identification is on the front of the box.

As noted, inside is a black plastic tray with a translucent plastic cover and a blue plastic burblock-like insert keeping the contents well organized.

Most (69%) evaluators thought the packaging was acceptable, while 31% found it to be exemplary.

Directions

The main directions are multi-lingual, plain paper in the annoying, foldout format. Easy to follow and understand. There is also a well-done animated video on the manufacturer's site showing its utilization.

Most (77%) evaluators thought the instructions were acceptable, while 23% found them to be exemplary. The video garnered the most kudos.



Strengths

One size of post and drill reduces inventory and simplifies size selection. Tapered profile for maximum tooth conservation. Fairly simple to use. Sleeve minimizes volume of cement and can stabilize the post. No failures of any kind were reported during the evaluation period. Animated video flattens learning curve.

Weaknesses

Resilience of the post and sleeve was questioned. Additional post sizes may still be necessary in some cases. Using the sleeve may require excessive tooth structure removal. VHS-type box was considered too large and unnecessary by several evaluators.

BOTTOM LINE

A single-size post system certainly makes sense. Not only does it eliminate having to find the right size post and use the matching drill, but the sleeve minimizes the volume of cement, which means you are replacing a relatively weak link (the cement) with a substantially stronger structure (the sleeve). This should lead to an overall more robust post and core. However, you still may want to keep a system with multiple sizes just in case one-size-fits-all doesn't handle all cases.

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New product

A single post for any situation!

SPLENDOR - SAP

Single fiberglass post system



INDICATION

- Core build-up for restorative procedures.



Universal



Anatomical



High
retention

Definition

Angelus, a pioneer company and specialist in research, development and manufacture of fiberglass products for Dentistry, has launched a new generation of intra-canal posts.

The development of this new technology was the result of an in-depth study of current fiber posts techniques deficiencies and difficulties in their use by the dentist.

The first challenge was to reduce the drill and posts shapes and sizes current available offering a dynamic size that fits in different canals' morphology.

The second was to develop a system that fits properly to the cervical morphology, an area that normally presents more amplitude. The use of traditional posts results in a lack of adaptation in this area, which may cause post failure.

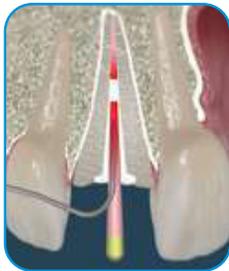
As a result, Angelus has developed a universal system called Splendor - SAP (Single Adjustable Post), consisting of only one drill, one post and one sleeve. This solves the first challenge by decreasing the inventory of various drill and post sizes. By adapting to narrow or medium-sized canals, filling the cervical area of the preparation with fibers, the second challenge was also solved.

Additionally, SPLENDOR - SAP allows the use in minimally invasive preparations, as well as provides greater mechanical interlock, increasing the interface between the post and canal walls in addition to the chemical bonding.

A single system for any situation!

Technique Guide

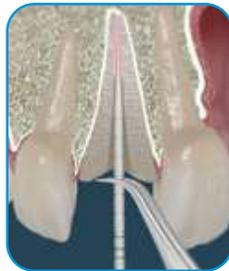
Note: post space preparation and post bonding/cementation should be done with proper rubber dam isolation.



Remove obturation to the desired level.



Prepare the post space with Splendor bur.



Place the post in the canal.



Insert the sleeve onto the post and position it as tightly as possible with light pressure.



Cut the post and sleeve set at the defined length.



Remove the set, wipe them separately with alcohol and air jets



Prepare the post space according to the instructions remove of preferred cement.



Initially position the post in the canal and then the sleeve over it.



Proceed core build-up.

Clinical Case



Images provided by Prof. Dr. Rodrigo Albuquerque

