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ACTIVE SMILE DESIGN

A Comprehensive Guide to Active Smile Design
for Crowns, Bridges & Injection Moulding:
Taking you from Start to Finish

What is Smile Design / Active Smile Design / Active Injection Moulding / 3D Printed Teeth

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Active Smile Design

- Injection Moulding
- Crowns / 3D Printed Teeth

Table of Contents:

- What is Active Smile Design?
- Why Active Smile Design?
- Benefits of Active Smile Design
- Active Smile design for Injection Moulding
- Active Smile Design for Crowns / 3D Printed Teeth
- Case Design Requirements - Quality Control Images
- Active Smile Design
  - Overview
  - Digital Workflow
- Active Smile Design for Injection Moulding
  - Overview and
  - Digital Workflow
  - Steps for Injection Moulding
  - FAQ's
- Active Smile Design for Crowns & 3D Printed Teeth
  - Overview
  - Digital Workflow
  - FAQ's
- Contact Details

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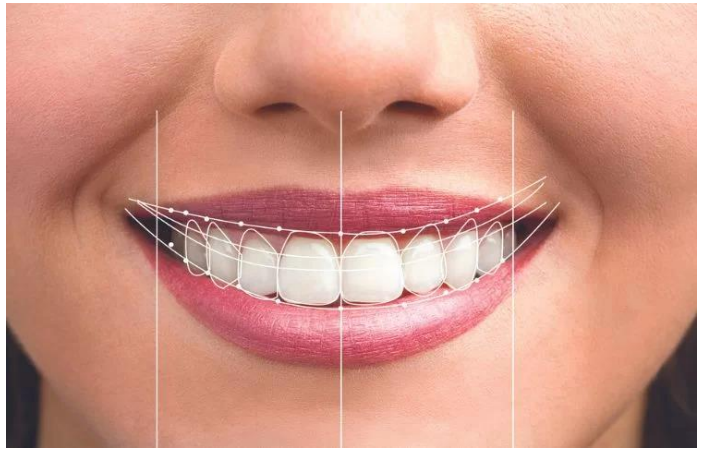

DIGITAL DENTISTRY

Enter the digital era of dentistry with your intra-oral scans.

What is Active Smile Design?

Active Smile Design is a dental treatment planning tool that has the ability to strengthen a dental provider's diagnostics, enhance predictability, and improve communication between all parties involved.

Dentists use diagnostics for a thorough analysis of the patient's dental position.

Active Smile Design allows for dentists to use videos, photographs, and temporary mock-ups, to get a better sense of the relationship between the lips, gums, and teeth, as well as how they work together to create the patient's smile.

Access your smile design, treatment plan and patient info from wherever you are.
No more emails, wetransfer files and USB drives.
Web based interface for ease of use from any computer.

Why Active Smile Design?

Historically, pricing for smile design meant most practices couldn't afford it (even the intra-oral scanner and software costs are barriers to practices starting out with digital).

Our approach is pay for ONLY what you and your patients need. This means no more subscriptions, sign up fees, annual license fees or training so complex and long that you are discouraged before you even start.

Our fees are only billed on what you need designed. A fixed cost per tooth (unit) design charge.

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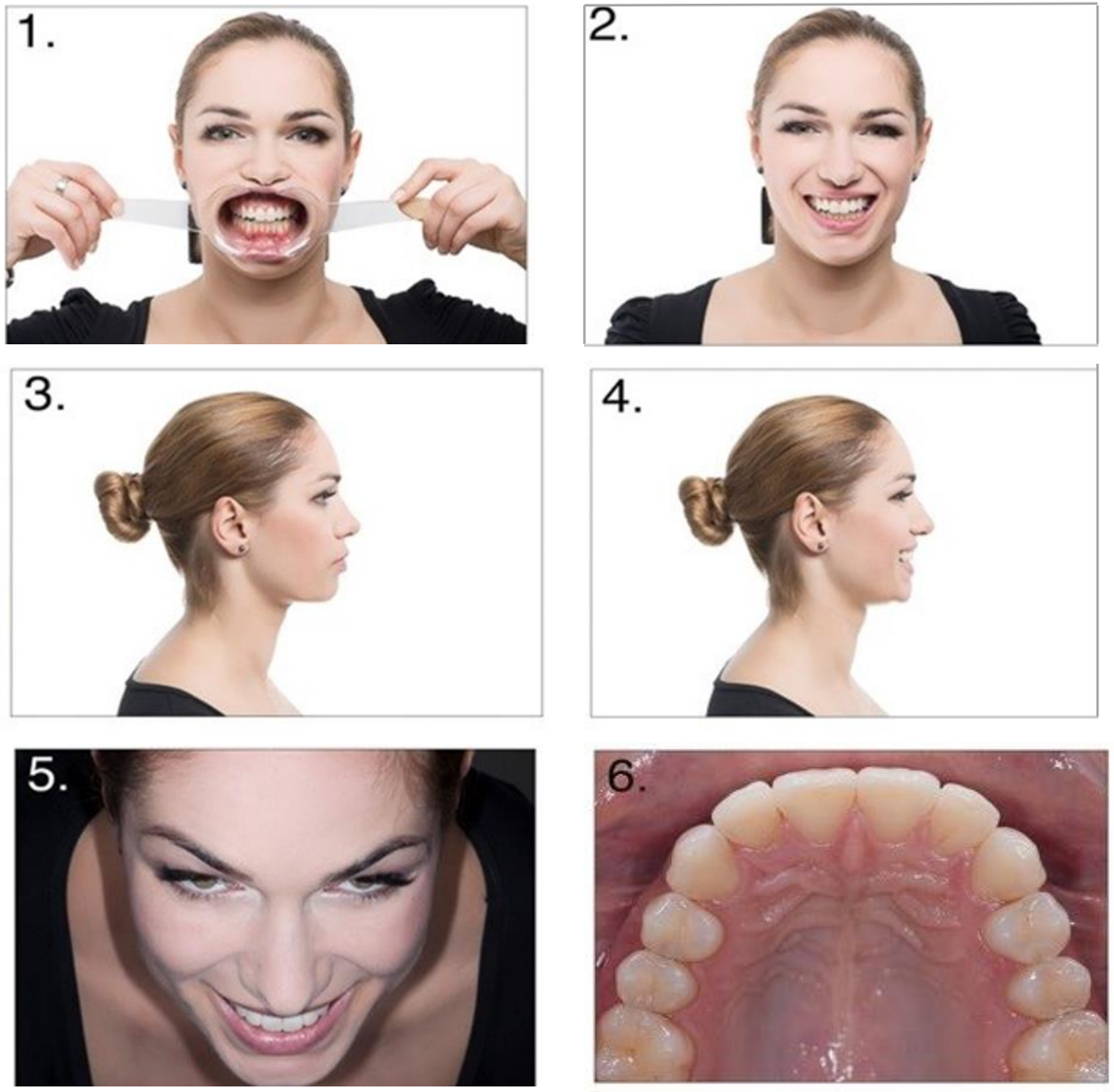
Benefits of Active Smile Design for You and your Patients

•Active Smile Design is a consistent way of producing **excellent results**. This gives patients confidence and peace of mind that their desired aesthetically pleasing smile and functional outcome will be achieved.
•**Higher case acceptance rates** due to patients wanting and seeing great aesthetic results before commencing treatment.
•Allows for more **pain free dentistry** as you can use an additive approach to teeth.
•It provides a **systematic approach** for diagnosis, communication, treatment planning, execution, and case maintenance.
•Technology allows for a **high level of clinical quality control**, minimizing the potential for errors.
•Patients have the opportunity to **see the outcome before they commit** to or undergo any dental treatments or procedures. This is especially useful in cases where the dental restoration process is likely to be extensive and costly.
•Enables you, the dentist, to give recommendations based on your patient's individual needs as well as grants both of you the freedom to explore a **wide variety of treatment options** within a short period of time to find the one that's best suited for your patient.
•An Active Smile Design workflow is a **co-designing method**, which allows for a high level of patient involvement, feedback to produce phenomenal results and no last-minute surprises.

ACTIVE SMILE DESIGN:
ACTIVE INJECTION MOLDING, CROWNS & BRIDGES

QUALITY CONTROL IMAGES

- The treatment planners require a retracted smile that gives them the ability to utilize the existing teeth to align to the scan provided (See image).
- The patient's photo is used to align the 3D scan to the image using a 3-point alignment so that once the design is complete you can see how it will appear superimposed in the photo.
- **Ideally patient smiling as wide as possible.**



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Advanced Smile Design (digital waxup)

- Digital design of full arches (digital waxup)
- Ability to take further to be able to prep and design each restoration to match the initial smile design.
- Priced per individual units (teeth)
- Input into the design is critical to make sure design meets requirements.

Active Smile Design	Description	Price
Smile Design – Digital Wax Up	**All teeth designs, charged per tooth /unit (includes Design and 3D Digital waxup)**	**Please contact us for pricing**
Printed model (if required)	**Per model**	**Please contact us for pricing**

Workflow for ACTIVE SMILE DESIGN

Go to Doctors Login:
www.activealigners.co.za

NB! – the basics of Active Smile Design is a full digital wax up. Printed Models of the design can be provided.

1. Sign onto your profile on the FullContour platform (you need to be on the Smile Club Platform).
2. Make sure you have good quality photos and scans available in a zipped folder labelled with patient's name.
3. Create a new case on the portal by selecting "New Orders" and then browse for the patientname.zip file with the photos or photos and scans.
4. Enter Patients Name and instructions in the labeled boxes.
5. Under design type select "Advanced Smile Design"
6. Under Teeth select the teeth that you would like to include in the design (priced per unit)
7. Under Guide, follow all the questions around styles and anatomy in order to get the design the way that you want it. There are many questions to answer which are critical to get the best possible outcome.
8. Submit New case.
9. If scans were not attached directly case will go into Hold until the scans have been sent and loaded by Smile Club.
10. Design will take approximately 24hrs from time that all items are attached to the case.
11. When case is in Needs Approval, you can select "Review" button, or Actions Review Case if in the case.
12. **The design shows a series of photos of the design as well as photos of the patients front view with the design superimposed on the photo.**
13. If unhappy with the design, you can put the design into redesign with the detailed requirements of what you want changed.
14. **The basic manufactured output is 3D printed models of the design**.

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ACTIVE SMILE DESIGN FOR INJECTION MOULDING

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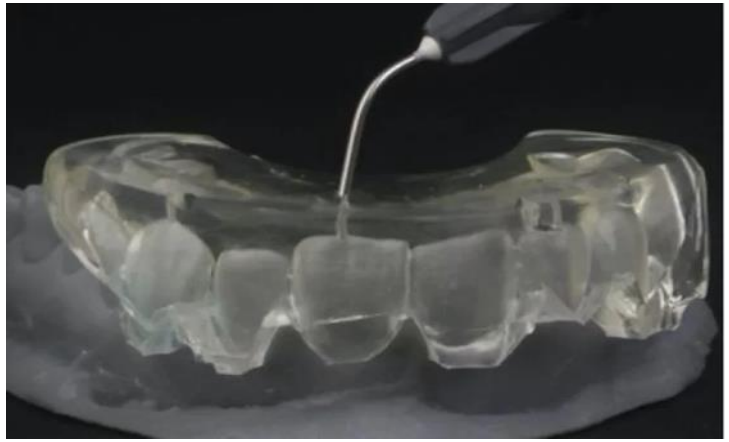
Active Injection Moulding



- Digital design of the teeth required
- 3D printed model of the design
- Template with injection holes over the designed teeth
- Priced per individual units (teeth)
- Input into design is critical to make sure designs meet requirements.

Active Smile Design	Description	Price
Injection Moulding	Smile /Tooth Design, per tooth/unit (includes design & 3D digital wax up)	Contact us for pricing
	Indexes: if there are Adjacent teeth in the design, we provide 2 x indexes, with their models (Price/cost is per arch)	Contact us for pricing
	If none of the teeth in the design are adjacent to each other, we supply only one index with its model (Price/cost is per arch).	Contact us for pricing

Workflow for **ACTIVE INJECTION MOULDING**

Go to Doctors Login:
www.activealigners.co.za

1. Sign onto the Fullcontour/3shape design platform.
2. Make sure you have good quality photos and scans available, in a zipped folder labeled as patient's name.
3. Create a new case on the FC portal by selecting "New Orders" and then browse for the patientname.zip file with the photos or photos and scans.
4. Enter Patients Name and instructions in the labelled boxes.
5. Under design type select " Active Injection Molding"
6. Under Teeth select the teeth that you would like to do Injection Molding on.
7. Under Guide, follow all the questions around styles and anatomy in order to get the design the way that you want it.
8. Submit New case.
9. If scans were not attached directly case will go into Hold until the scans have been sent and loaded by Smile Club.
10. Design will take approximately 24hrs from time that all items are attached to the case.
11. When case is in Needs Approval, you can select "Review" button, or Actions Review Case if in the case.
12. **The design shows a series of photos of the design as well as photos of the patients front view with the design superimposed on the photo.**
13. If unhappy with the design, you can put the design into redesign with the detailed requirements of what you want are corrected.
14. If happy with the design, then approve the design for manufacture (remember to complete a lab slip too).
15. **Models and templates will be designed and shipped for the injection molding process**.

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Steps for **ACTIVE INJECTION MOULDING**

(once the dentist has now received the 3D printed design (wax-up) and the silicone indexes)

1. Isolate the teeth using a rubber isolation device, ideally an Optra gate.
2. Sandblast / prep teeth to create a minimum thickness of flowable composite. < 0,2mm on buccal surfaces and < 0,5mm on incisal edges.
3. Ideal flowable composite is GC-aenial flowable
4. Protected adjacent teeth not receiving resin in first silicone (knit one) index 1 using Teflon tape.
5. Etch and bond the prepped teeth (skip one) using correct bonding protocol.
6. Place silicone index 1 and inject resin slowly into one selected tooth at a time, light cure and move to adjacent tooth.
7. Remove index 1 and all excess resin. Clear interproximal areas.
8. Cover newly bonded teeth with Teflon tape and etch and bond remaining teeth for silicone index 2.
9. Place silicone index 2 and inject resin as done in step 6.
10. Remove index and all excess resin.
11. Check occlusion and lateral slides.
12. Interproximal polishing strip and other resin polishers to finish.

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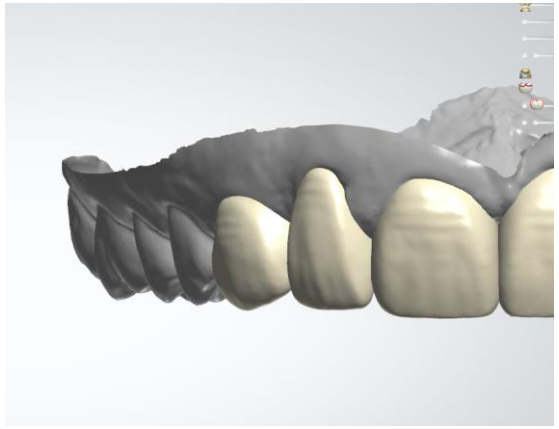

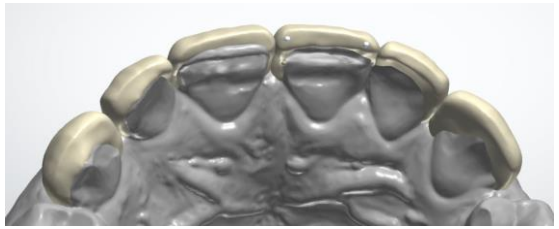

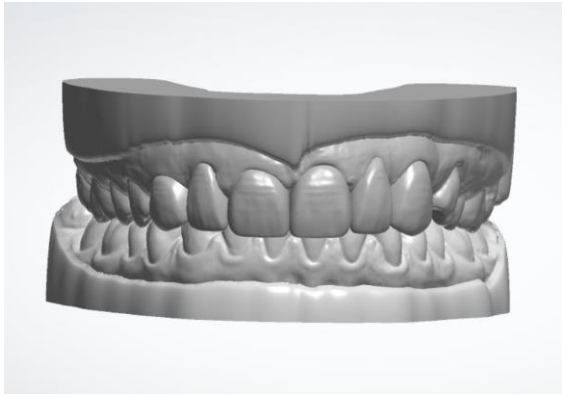

INJECTION MOULDING FAQ's

1. **Is it recommended to isolate the teeth with plumber's tape or something similar to maintain the marginal integrity or will the mould incorporate this?**

If there are adjacent teeth, we create two guides to isolate adjacent teeth as much as possible. Each guide is setup so you can only inject every second tooth. You would need to protect the adjacent teeth with Teflon tape.

2. Do the teeth need to be prepped as for veneers, or can the composite be used directly on the buccal surface (or both)?

Sandblast / prep teeth to create a minimum thickness of flowable composite. < 0,2mm on buccal surfaces and < 0,5mm on incisal edges. Check the design first to see what prep might be required in which areas.

3. Can this technique be used to correct small orthodontic deviations (I assume this will need some preparation first)?

Yes, it can be used for minor orthodontic deviations.

4. Are there lab codes that can be used to submit to medical aid?

Surface is the main code - 8353 and 4 surface 8354

5. Is there a design available to preview with the patient before commencement of treatment (and is it also loaded onto the full contour portal?)

Yes, there is a design that can be previewed which consists of many 2D images. There is no 3D simulation for these designs. See attached example images.

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ACTIVE SMILE DESIGN FOR 3D PRINTED CROWNS (& BRIDGES)

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3D Printed Crowns (& Bridges)

- Digital design of the teeth required
- 3D printed model of the design
- Crown fitted onto articulated model
- Priced per individual units (teeth)
- Input into design is critical to make sure designs meet requirements.
- You can use a blank .zip file to create a case, photos are not essential.

NB! – Every Crown has a design cost and a manufacturing cost.

Active Smile Design	Description	Price
3D Printed Crowns	Smile /Tooth Design, per tooth/unit (includes design & 3D digital wax up)	Contact us for pricing
	3D Printed Crown (Price/cost per Crown/Tooth)	Contact us for pricing

Workflow for 3D Printed Crowns

Go to Doctors Login:
www.activealigners.co.za

NB! – Every Crown has a design cost and a manufacturing cost.

1. **Make sure the teeth have been prepped correctly. 3D printed resins need a minimum of 1mm thickness all round, please make note of this if there are adjacent crowns.**
2. Make sure you have good quality photos and scans available for the prepped area and the opposing arch. Need to be able to see the margins properly.
3. Create a new case on the Design portal by selecting “New Orders” and then browse for the patientname.zip file containing photos and/or scans (a blank .zip file can also be used if needed).
4. Enter Patients Name and instructions in the labelled boxes, this must include what shade is required.
5. Under design type select “Active Smile Design”
6. Under Teeth select the teeth that you would like to include in the design (priced per unit)
7. **Under Guide, follow all the questions around styles and anatomy in order to get the design the way that you want it. There are many questions to answer which are critical to get the best possible outcome. If unsure you can leave the defaults.**
8. Submit New case.
9. If scans were not attached directly case will go into Hold until the scans have been sent and loaded by Smile Club Lab.
10. Design will take approximately 24hrs from time that all items are attached to the case.
11. When case is in Needs Approval, you can select “Review” button, or Actions Review Case if in the case.
12. The design shows a series of photos of the design as well as photos of the patients front view with the design superimposed on the photo.
13. If unhappy with the design, you can put the design into redesign with the detailed requirements of what you want changed.
14. If happy with the design, please approve and send through a LAB slip.
15. Crowns will be manufactured and fitted onto printed models and delivered.
16. **3D printed crowns are attached in the same way as milled crowns.**
17. From approval, manufacture of crowns will take 3 to 5 working days.
18. Please can you provide a wax-bite if occlusal plane is compromised.

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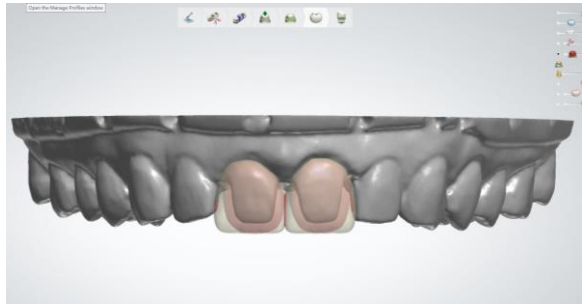

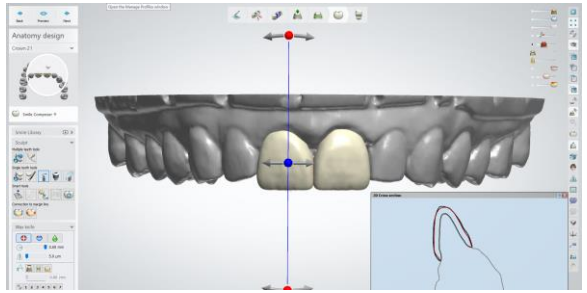

3D PRINTED CROWNS FAQ’s

1. How long do 3D printed crowns last?

With proper care and placement, 3D printed crowns can last as long as traditional crowns.

2. How do I attach a 3D printed crown?

3D printed crowns are attached the same way as milled crowns.

3. Do I need temporary crowns, or can I order 3D printed crowns without this step?

For large cases, we recommend ordering temporary crowns first. Please note that these will be 2 separate designs, with 2 separate fees.

4. Are there lab codes that can be used to submit to medical aid?

8409 - Crown – Porcelain / ceramic

5. Do I need to provide a wax-bite?

Yes, if occlusal plane is compromised, we will need a wax-bite.

5. Is there a design available to preview with the patient before commencement of treatment (and is it also loaded onto the 3-shape portal?)

Yes, there is a design that can be previewed which consists of many 2D images. There is no 3D simulation for these designs. See attached example images, together with an image of the final product.

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SMILE CLUB LAB — CONTACT DETAILS

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