INSTRUMENT &MATERIAL

Convenience with the
state-of-the-art techology

Volume IM C1.0

MEGAGEN
For Lifetime Smiles

INSTRUMENT & MATERIAL

Convenience with the state-of-the-art techology

Contents

01. INSTRUMENT

- MEGA ISQ™ 06
- MEG-TORQ™ 10
- MEG-CLEANER™ 13
- MEG-INJECT™ 16

02. MATERIAL

- EZ Seal® 20
- MEGA SIL™ 22


MEGAGEN

01

INSTRUMENT

The Original Technology from Osstell MEGA ISQ™

Wireless Auto torque driver MEG-TORQ™

Perfect Cleaning System MEG-CLEANER™

Low Pain Anesthesia Delivery System MEG-INJECT™

The Original Technology from Osstell

MEGA ISQ™

Adjust the prosthetic process timing confidently with the objective evidence, ISQ value.

1. Optimal Loading Decision

• When is the right time to load?

The MEGA ISQ System makes it easier for dentists to decide when is the optimal time to load implants. It's the ideal substitute for tactile assessment. The decision will always be a complicated one. Several key clinical parameters and risk factors are involved, most of them related to the stability of the implant. Accurate measurements of implant stability therefore provide valuable diagnostic insight that helps ensure successful treatments. At placement, stability can be difficult to quantify objectively by merely relying on tactile perception. Torque measurements are difficult to repeat once the implant has started to integrate and can therefore not provide a baseline for subsequent comparisons. The invasive torque method may even damage the healing if used for monitoring osseointegration.

2. Early warnings- Preventing failure

• Early warnings instead of failure

A failed treatment results in suffering for the patient and considerable costs for both the patient and the dentist. A precise and reliable diagnostics tool like MEGA ISQ reduces the risk of failure. Each implant patient is unique and must be judged by his / her own characteristics. Factors affecting the outcome of loading include the patient's age, the density and volume of the bone – as well as the degree of osseo-integration. Dentists sometimes encounter patients whose initial stability score is low. The reason could be that they have had to undergo a bone graft. In such higher-risk situations, most surgeons would avoid an early-loading protocol. Similarly, a significant decrease in stability indicates a potential problem and should be considered an early warning. The surgeon may prefer to unload the implant – or perhaps place additional implants – and then wait until stability increases. Thanks to the accuracy of ISQ measurements, surgeons can make a more well-informed choice of protocol for each patient. And by comparing initial and secondary stability readings, they can detect and act on any unexpected development during healing and osseo-integration. This makes the treatment of high-risk patients easier and more predictable – allowing more of these patients to be treated and more of their treatments to be successful.

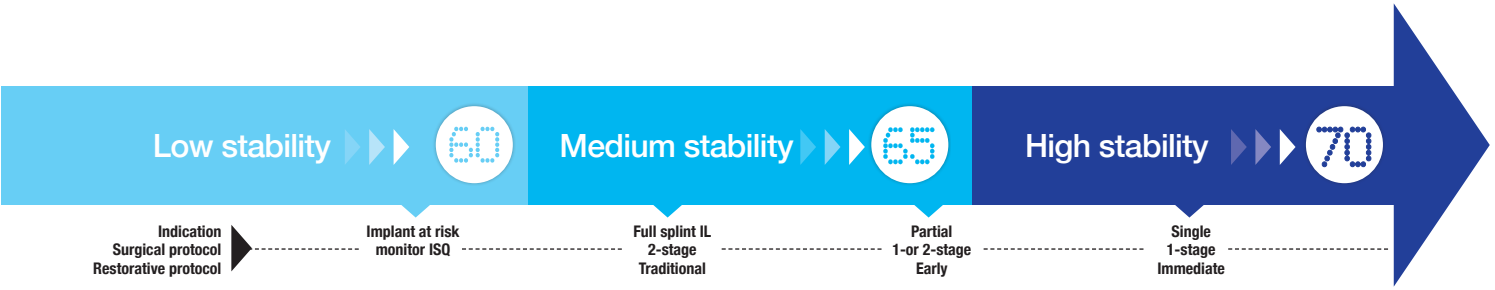
3. Quality assurance

• Diagnostics add quality

Because MEGA ISQ helps the dentist decide when to load and avoid failure in high-risk situations, it becomes a quality-assurance system for the clinic. Most patients intuitively understand the stability measures and how they govern when to load an implant and when to wait. This increases their sense of confidence, security and quality. MEGA ISQ also facilitates communications – between surgeon and prosthodontist, as well as between different clinics. They can now compare treatments and results in an objective manner, and transfer valuable knowledge and experience among themselves or to dentists in training.

▾ Warranty

MEGA ISQ is covered by a 12-month warranty from the purchasing date. Users always have free access to MegaGen support by phone and e-mail, should questions arise that are not covered by the operating manuals.



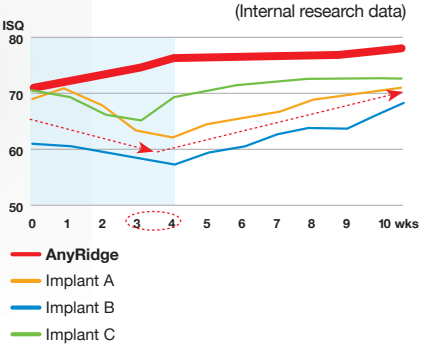
Perfect Matching

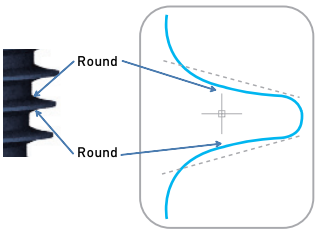
- **Innovative KnifeThread design and accurate diagnostic**

AnyRidge® fixtures do not depend on the cortical bone for initial stability. Decreased stress on the cortical bone helps to prevent from bone resorption following fixture placement. Thanks to the AnyRidge®'s unique knife thread and super selftapping design, better initial stability can be attanined in any compromised bone situation. It offers progressive bone condensing, ridge expansion, maximized compressive force resistance and minimized shear force production.

Comparison of ISQ value trend

(Internal research data)

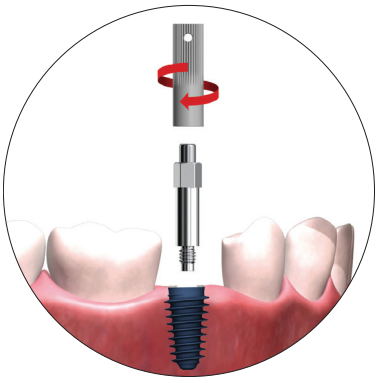


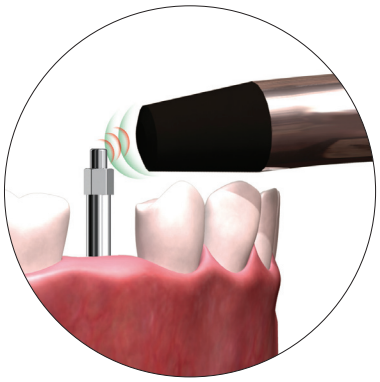


KnifeThread®

- **Round faced and thin thread design**

- Less insertion torque
- Excellent initial stabilization
- Resistance to compressive force
- Minimal Shear force creation
- Higher BIC





MEGA ISQ-Comfortable, fast and easy to use

Obtaining exact implant stability measures using the MEGA ISQ is a completely non-invasive procedure. It can normally be performed in a few seconds. Experience shows that patients find it both comfortable and reassuring.

1. The SmartPeg is attached to an implant. It screws effortlessly into the implant's inside thread.

2. The hand-held probe stimulates the SmartPeg magnetically, without actually being connected to it – or even touching it.

3. An ISQ value is generated and shown on the display. It reflects the level of stability on the universal ISQ scale – from 1 to 100. The higher the ISQ value, the more stable the implant.

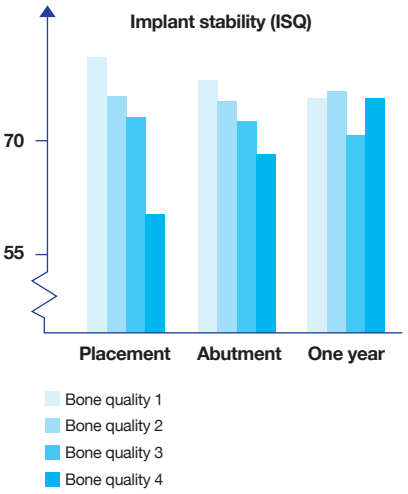
Stability development in different bone quality

High initial stability (ISQ values 70 and above) tends not to increase with time, even if the high mechanical stability will decrease and to be replaced by a developed biological stability.

Lower initial stability will normally increase with time due to the lower mechanical stability being enforced by the bone remodeling process (osseointegration).

Values such as ISQ 55 or lower should be taken as a warning sign and actions to improve the stability might be considered (larger implant diameter, prolonged healing time etc.)*

* Implant stability measurements using Resonance Frequency Analysis.



The SmartPeg is a small, precision-crafted metal rod that should be assembled with the implant (or abutment) while a measurement is being performed. It's easy to mount and requires minimal space in the patient's mouth. They are for single-use and delivered sterile in boxes of five units. In non-homogenous bone, the SmartPeg automatically resonates in two perpendicular directions – thus providing a correct value for the highest as well as the lowest stability direction of the implant.

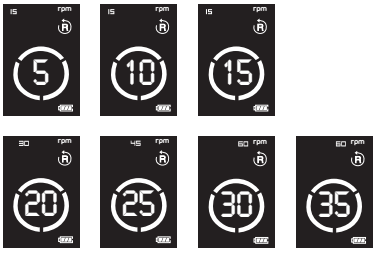
Wireless Auto torque driver

MEG-TORQ™

1. Ergonomic Design!
2. Digitalized operation!
3. Superior durability!

Accurate & Fast!

1. It's possible to operate wide range of surgical procedures from implant placement to orthodontics with various controllable torque and speed options.
   Torque setting : 5, 10, 15, 20, 25, 30 and 35Ncm
   RPM setting : 15, 30, 45 and 60 RPM

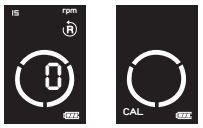


The highest RPM speed > Rapid treatment

Product	TORQUE	RPM	Feature
MEG-TORQ	5~35N (Possible to adjust the value per every 5N)	15~60 (Possible to adjust the value per every 15RPM)	Rapid treatment with higher speed compared to other brands.
N Product	10~40	25	Expensive and takes more time to insert fixtures with low RPM
M Product	10~30	30	Inefficient performance due to low torque value and low speed

* One of the highest RPM products in the world enable to convenient and faster treatment.

2. State-of-the-art TCS (torque calibration system) minimizes torque value errors between Motor Handpiece and Contra-Angle. Provided numerical data as torqueing abutment screws (Torque gauge function)

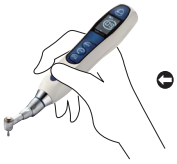


3. Wide LCD display guarantees convenience.
4. More than 2 times faster than using manual torque wrench, enable to shorten chair time.

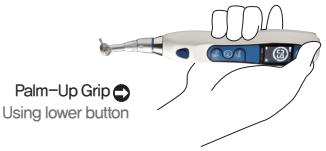
User-Friendly!

1. LCD Digital Display shows every function including torque, speed, direction of rotation, battery condition and calibration mode setting. Panel display is clear and easy to use.

2. Operation buttons at both ends allow clinicians to use in various angles and grip positions.



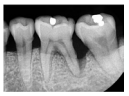
Pen Grip
Using upper button



Palm-Up Grip
Using lower button

3. Cordless Power Recharging
   (max 60 minutes of continuous operation time when fully charged)
4. Ergonomic Design empowers clinicians to operate easily.
5. One-handed operation provides a wider view of operation site.
6. Functions as an exact Torque Gauge to make perfect tightening of abutments and screws.

Clinical Advantage



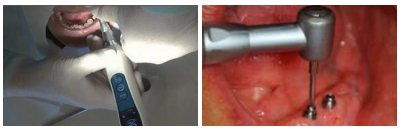
#36 OP With MEG-TORQ

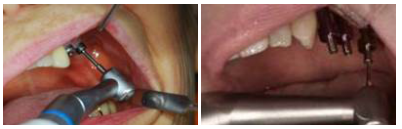
MEG-TorQ setting: 35Nm, 60rpm

Drilling with MEG-TorQ

AnyRidge fixture 4011

Place implant with MEG-TORQ





- One-handed operation widens implants view and increases productivity and safety.
- Easy to handle the prosthetics. Speedy, accurate and safe operation
- Visual access to operation site becomes easy thanks to the 2 operation buttons (up/down) even in small spaces in the molar area.
- Installation and removal of implant coping, healing abutment, and cover screws can be faster (more than 2 times) and more accurate.
- MEG-TORG is useful to reach to a distal implant or difficult cases such as lower third molar case than using hand-driver.

Reliable & Strong!!

Combination of world's first class FAUL-HABER motor from Germany with Swiss-made reduction gear.

Perfect Cleaning System

MEG-CLEANER™

Each step can be controlled and operated separately!
- 3 steps can be operated at the same time and also possible to control one by one.
- No matter how long, no matter how many steps you want.

Characteristics & Components

Soaking + Washing + Rinsing for dental components!

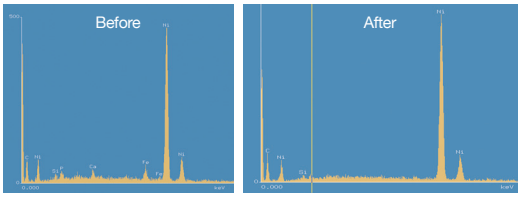
Step3
Rinsing
Perfect cleaning through 40Khz ultrasonic soaking, magnetic barrel washing and low-temperature plasma rinsing!

Step2
Washing

Step1
Soaking

Perfect bactericidal cleaning

Clean 100% foregign substances cleanly.



EDS analysis

Step1. Soaking (Soaking Jar)
Soaking performance by strong and outstanding ultrasonic 40Khz and BLT type.

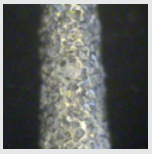
Step2. Washing (Washing Jar)
Remove foreign substances without damaging appearance or functionalities by metal pins with adequate size and rotation speed.

Step3. Rinsing (Rinsing Jar)
Strong antiseptic effects by underwater ion sterilization (Generates low-temperature plasma in the water to perform strong sterilization by Hydroxy Radical).

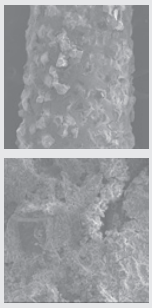
* Containers included in each step according to the features to make it easy and more hygienic follow-up management.

MEG-CLEANER vs. Ultrasonic Cleaner

Diamond Bur before cleaning

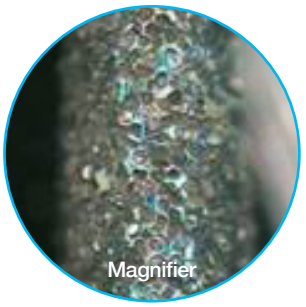


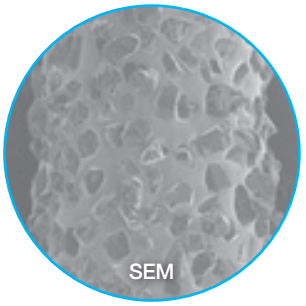
Magnifier



SEM

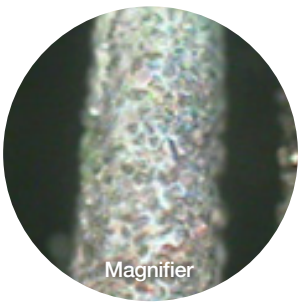
MEG-CLEANER

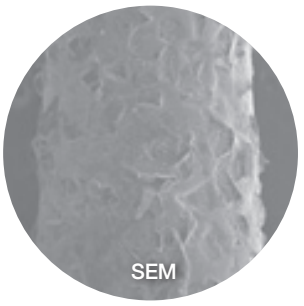


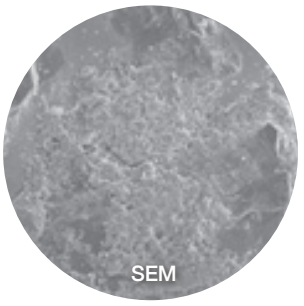


1. Possible to do other tasks while you're operating after starting MEG-CLEANER.
2. Possible to operate 3 different features at the same time.
3. **Only 45 minutes to clean up.**

Ultrasonic Cleaner







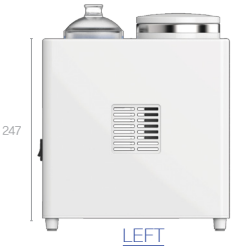
1. Each step should be cleaned by separately.
2. Not possible to do other tasks after starting the operation.
3. Inconvenient way of cleaning.
4. **More than an hour to finish the cleaning.**

Specification

Product Name	Cleaner
Model Name	SHMG-01
Brand Name	MEG-CLEANER
Power Consumption	AC220V 50 / 60Hz 85W
Standard	260×260×247mm (L×W×H)
Capacity	250ml (Soaking) / 280ml (Washing) / 400ml (Rinsing)
Weight	4.7kg
Frequency	40Khz

TOP

FRONT



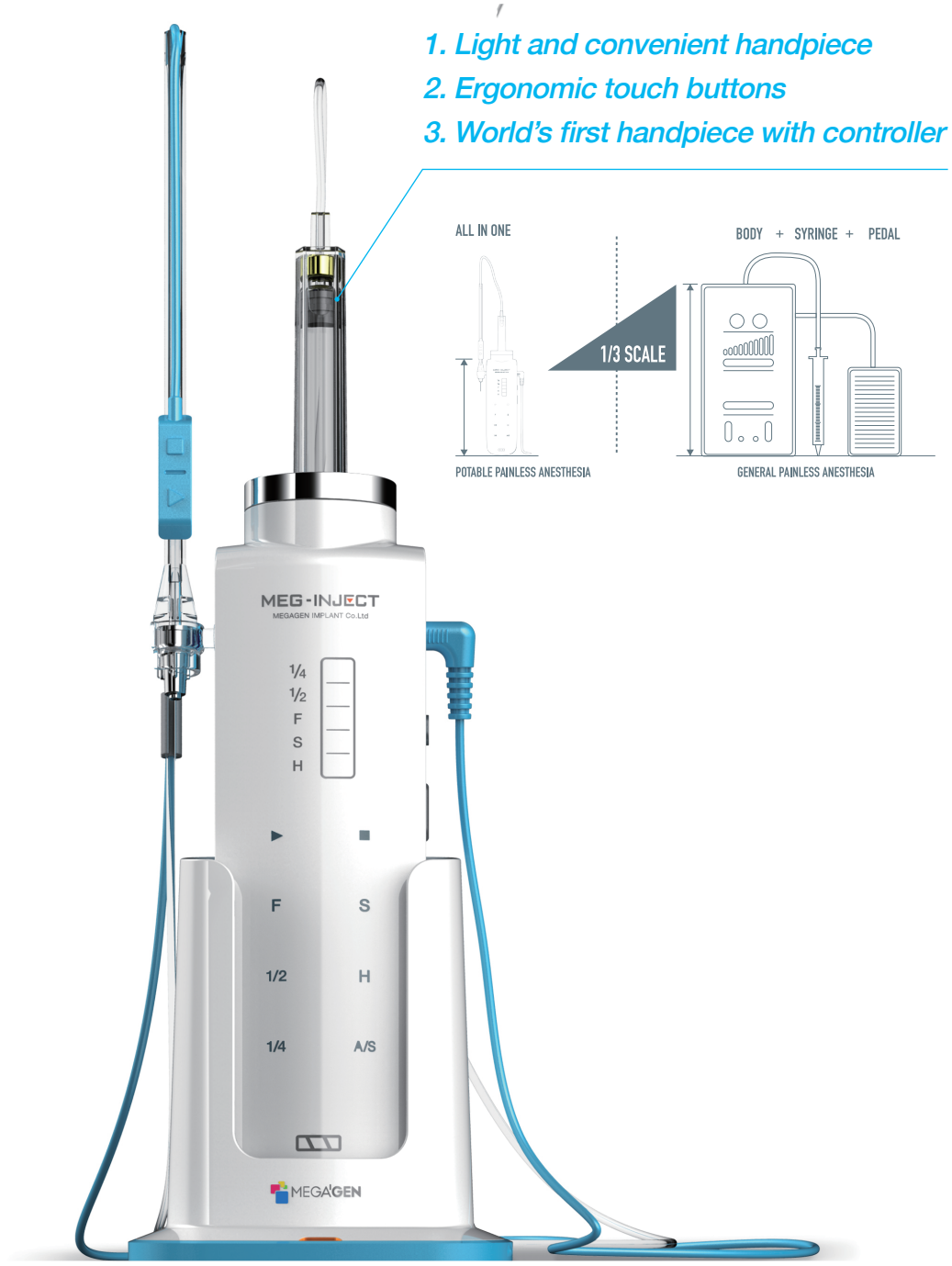
LEFT

Low Pain Anesthesia Delivery System

MEG-INJECT™

* This product was co-developed with the KMG-Keomyung, the market leader in Korea with more than 10 years of product experience, to upgrade the product by reflecting its vast know-hows.

1. Light and convenient handpiece
2. Ergonomic touch buttons
3. World's first handpiece with controller



Characteristics & Components

1. Light and convenient handpiece
- World's first handpiece with controller
- Single-handed operability without pedal
- Light weight enables you to operate for a long time without fatigue.

2. Contactless charging & Ultralight system
- Holder is the charge cradle for cord less charge by electromagnetic induction.
- Easy to use and easy to move(arm-band included for convenient use)
- 8 hours of continuous operation after being fully charged

3. Ergonomic design with easy-to-understand control panel
- Easy selection of the injection speed by touch panel.
- Equipped with the constant voltage touch sensors and graphic indicators. (LED indicators let you make control easily.)

4. Various injection modes by clinical necessity
- Safe and easy anesthesia by keeping constant injection amount and speed. (1/4, 1/2, F, S, H).
-Efficient for block anesthesia or periodontal ligament organization.

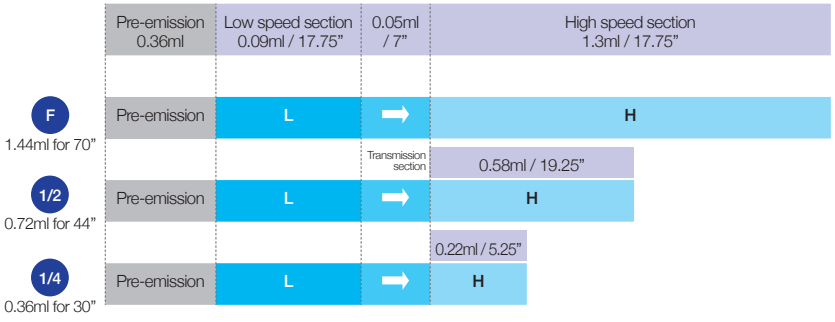
5. More efficient to use dental needle and medical needle at the same time.

6. Voice guide / Aspiration function equipped.

➲ Usage of Meg-Inject and Speed Control

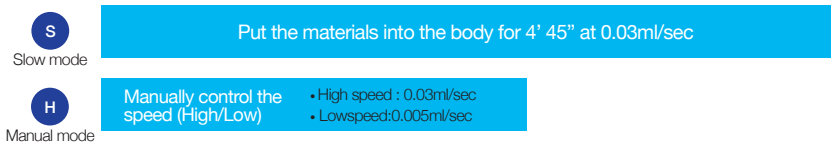
Auto Mode

1. Pre-emission : air + infusion(0.36ml)
2. To automatically control the speed of infusion from low speed to high speed
3. High speed 0.03ml/sec
   Low speed 0.005ml/sec



Manual Mode

1) No pre-emission
2) To vary the speed and time of infusion according to the use.



Specification

Product Name	Low pain anesthesia injector
Brand Name	MEG-INJECT
Battery	Lithium Polymer 3.7V /1,000Ah Battery charger with standard Micro USB type-B port5V±0.25V
Standard	47.96×28.78×165.75mm (L×W×H)
Weight	160g
Color	White / Black (Coming soon)

02

MATERIAL

Impression Material MEGA SIL™

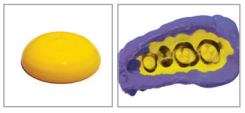
Screw hole sealing material EZ Seal™

Impression Material

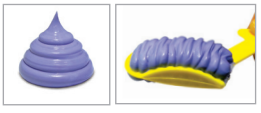
MEGA SIL™

1. Reasonable price

2. High quality



Light Body



Heavy Body

Bite registration

1. Heavy Body

1. Smooth mixing and easy injection re duces fatigue for the user.
2. Free from taste and scent, Heavy Body prevents excessive patient salivation.
3. High elasticity enables easy removal no deformation after curing thanks to correct hardness.
4. Thixotropic - does not slide from the tray.
5. High affinity with plaster enables accurate modeling.

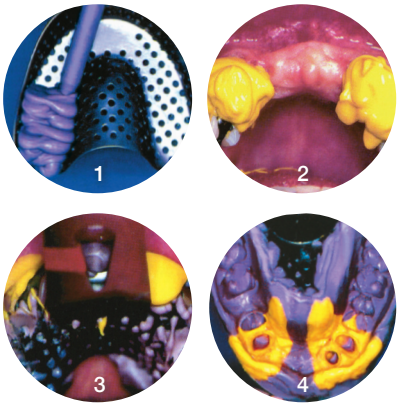
2. Light Body

1) Highly thixotropic Light Body with remarkably uniform smoothness prevents running in the mouth.
2) Excellent hydrophilicity and ideal flowability gives Light Body delicate reproducibility enabling precision modeling.
3) High elasticity and tear strength guarantees safety for the dental impression.
4) High affinity with plaster enables accurate modeling.

3. Bite registration

1) Reinforced hardness and least transformational change to guarantee accurate positioning during mounting. (Shore-A-hardness of 93)
2) Provides sufficient working time, 30 seconds to imprint the entire mandibular arch.
3) Short time to produce imprinted model with 90second hardening time.
4) Provide most accurate bite form with minimum mouth irritation.
5) Least transformational change, which prevents re-movement after usage.

➲ Clinical cases with MEGA SIL Heavy Body / Light Body



1. Dispense 'MEGA SIL Heavy Body' material into tray, Filling it to the height of the tray. Keep mix tip submerged in Heavy Body material to avoid air bubbles.
2. After drying the teeth, inject the Light Body material onto the teeth or into a tray.
3. Insert tray straight and evenly into mouth avoid rotation.
4. Use a timer, and follow recommended setting time in mouth. Remove tray from mouth, then rinse, dry and disinfect impression before shipping.

➲ Clinical cases with MEGA SIL Bite registration

1. Direct application of MEGA SIL Bite.
2. Patient in desired occlusion.
3. Bite registration before removal.
4. Easy to cut with a scalpel or a silicone cutter.

➲ Application

	Mixing Time	Working Time	Setting Time
Heavy Body Light Body	Auto mix	≤1 min	≤ 4 min
Bite		≤ 0.5 min	≤ 1.5 min

Screw hole sealing material

EZ Seal®

1. Simple!

2. Easy!

3. Convenient!