The purpose of this guide is to highlight the applications and advantages of each type of alginate, to guide practitioners in choosing the product which is best adapted to their needs and to give useful suggestions regarding the use of alginates. Alginates are the most used impression materials in all dental practices. They are essential in daily clinical practice in all dental specialisations: conservative, cosmetic, aesthetic, prostheses, orthodontics, implantology and pediatric dentistry.

**Specific characteristics for each application**
The wide range of alginates from Zhermack® offers distinctive characteristics for each application: maximum elasticity and resistance, different working and setting times (normal, rapid, extra-rapid), consistency and flowability, colour variations and dimensional stability.
What do Zhermack alginates have in common?
All Zhermack alginates offer essential base characteristics:

- **Easy mix formulation:** facilitates mixing by means of rapid water absorption
- **Dust Free Formula:** minimum dust to protect operator health, limiting the suspension of particles in the environment and resulting inhalation
- **Storage over time:** 5 year shelf life from the production date
- **Superior dimensional stability:** all formulations are optimised to reduce distortion, offering practitioners a choice of products which offer from 48 to 120 hours of dimensional stability
- **Thixotropy:** even in the lighter formulations, the alginate will not drip into patients’ mouth
- **Pleasing flavours which are well-tolerated by patients**

Dentist safety, patient satisfaction
Zhermack alginates contain natural, foodborne substances which allow dentists to easily and safely perform impression, minimising the possibility of allergic reactions in patients.

For Zhermack, quality is a standard
To ensure the quality requirements of practitioners, Zhermack carries out scrupulous inspections on incoming raw materials, semi-finished product and final products. Quality and reliability are essential conditions that contribute to Zhermack’s success every day around the world.
Dosing and storage

1. Open the bag and pour the alginate into a hermetically-sealed container. It is best to keep the product batch number and expiration date, cutting them from the bag.

2. Shake 2 or 3 times to disperse the powder evenly.

3. Powder dosing: with the help of a dosing measuring spoon, scoop out the alginate without compressing the powder. Level and remove excess alginate, passing the flat part of the spatula on the spoon and then pour into a rubber mixing bowl.

4. Water dosing*: for each level scoop of powder, 1/3 of a measuring cup of water is necessary (see figure). An ideal reading level of the water can be performed by positioning the measuring cup at eye level. When the lower part of the drop (meniscus) is tangent to the notch on the measuring cup, the dose is correct. The violet measuring cup is used for Hydrogum® 5 and Hydrocolor 5. The green measuring cup is used for all other alginates.

5. Close the container and store at 5-27°C/41-80°F.

*Times may vary depending on water temperature.
hydrogum

elastic

FAST SET 2’10”

Impressions for study models

» Quick mixing
» Thixotropic
» Elastic and resistant
USEFUL SUGGESTIONS

Manual mixing

Once you have chosen the Zhermack alginate which is most suitable for your needs, make sure you have on hand: rubber mixing bowl, powder and water measures for dosing (follow manufacturer’s instructions) and a stopwatch.

1. Pour the water* in the powder (not vice-versa)
   * Times may vary depending on water temperature

2. Start mixing by pressing the material against the sides of the mixing bowl with a hard spatula

3. This procedure must be performed during the mixing time indicated by the manufacturer. Once an even consistancy has been obtained, mixing is complete

Chromatic alginates
For colour changing Alginates (hydrocolor 5, tropicalgin, phase plus), mixing time, working time and time in mouth coincide with each colour change.
hydrogum soft
extra elastic
FAST SET 2'10"

Non muco-compressive impressions
Preliminary edentulous jaw impressions

» Easy mixing
» Creamy consistency
» Extra elastic
USEFUL SUGGESTIONS

**Automatic mixing with Alghamix II**

Obtaining an even, manual mix without air bubbles requires good dexterity. For enhanced mixing done simply and quickly, Zhermack offers *Alghamix II*, the mechanical mixer for alginites, plasters and silicones.

1. Pour water into the powder (not vice-versa) and position the spatula on the edge of the bowl. Activate the “slow” speed and start mixing by pressing against the side of the bowl.

2. Once all the water has been absorbed, switch to “fast” speed and finish mixing. This procedure must be performed during the mixing time indicated by the manufacturer.

[Enlargement of manual alginate mixing]

[Enlargement of alginate mixing with *Alghamix II*]
hydrogum 5
high stability
EXTRA FAST SET 1'50"

Impressions for diagnostic models
Impressions for antagonists in fixed and removable prostheses

» 5 days of dimensional stability
» Higher consistency
» Smooth, even impressions

MANGOSTEEN FRUIT FLAVOUR
To create the best impression, it is important to select an impression tray which is:
- both rigid and does not distort
- leaves enough proportional space, on both a vestibular and a lingual level
- covers all involved structures (including the last molars)

Zhermack offers **Hi-Tray Metal, Light Clear, Plastic, Light Edentulous**, a complete range of stainless steel and plastic impression trays which offer rigidity, resistance, improved retention capacity and maximum versatility.

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**Choosing the impression tray**

1. After having mixed the alginate and before the end of the working time, collect it with the special spatula and proceed to load the impression tray

2. Insert the impression tray in the mouth and wait until completely set*

*Times may vary depending on water temperature
neocolloid
high precision
NORMAL SET 3’30”

Precision impressions
Impressions for skeletal prosthesis models
» For injection
» Compatible with reversible hydrocolloids in mixed techniques
To prevent cross-contamination and ensure patient safety, all personnel must be protected with tested, safe products. **Zeta Hygiene** is a complete range of disinfectants and sterilisers for all applications: special products for instruments, equipment, delicate surfaces, suction circuits, impressions, hands and floors.

### Impression treatment

1. **Impression washing**
   After impression taking, rinse thoroughly to eliminate any residue and traces of saliva.

2. **Impression disinfection**
   Remove any excess water and disinfect the impression immediately. Ideal disinfection is obtained by dipping the impression in **Zeta 7 solution** or by spraying **Zeta 7 spray** (Zhermack) directly onto the impression.
orthoprint
orthodontic
EXTRA FAST SET 1’50”

Impressions for orthodontic models

» Highly elastic, even with braces
» Pleasant flavour, reducing the emetic reflex
» Excellent impression readability
Impression storage
If it is not possible to pour the model immediately after impression taking, eliminate excess water from the impression and conserve it in a hermetically sealed bag (Long Life Bag Zhermack) at room temperature (23°C/73°F). In these conditions, the plaster pouring can be stored up to 48 hours from impression taking.

Impressions taken with Hydrogum® 5 and Hydrocolor 5 can be stored in these conditions for up to 5 days, limiting size distortion.

USEFUL SUGGESTIONS

Model development

Before pouring the model, have the following on hand: rubber mixing bowl, spatula, powder and water measures.

It is important to use the right plaster/stone for all types of work:
- Class III (Elite® Model, Elite® Model Fast, Elite® Ortho, Elite® Arti) are used for study models, antagonists, articulators and temporary work.
- Class IV (Elite® Master, Elite® Rock, Elite® Rock Fast, Elite® Stone, Elite® Base) are used for fixed, skeletal and removable prostheses.

Dry the impression, eliminating surface water. Weigh the plaster and measure the volume of water. Then, first pour the water and then the plaster (not vice-versa).

Mix according to the times specified by the manufacturer. For mixing without air bubbles, Zhermack suggests using a Elite® Mix vacuum mixer.

With the help of a vibrator, pour the plaster in such a way that it flows inside the impression, filling it from the bottom upwards. Separate the model from the impression once it has cooled completely.
hydrocolor 5
chromatic high stability
FAST SET 2’10”

Impressions for study models and case planning

Impressions for antagonists in fixed and removable prostheses

Recommended in pediatric dentistry

» Colour change alginate*

» 5 days of dimensional stability

» Pleasant, refreshing flavour

*Changes colour to guide dentists during the 3 working phases
Temporary pieces with direct technique

Alginates can also be used as matrices for the creation of provisionals made in the dental practice. Before tooth preparation, an impression is taken in alginate, which must be washed and stored as indicated before. After preparing the tooth, Zhermack recommends use of Acrytemp, available in the following shades: A2 - A3 - A3.5.

1. Apply Acrytemp inside the impression and reposition it on the prepared tooth
2. Follow manufacturer instructions, remove the temporary from the impression once it has hardened
3. Finish the temporary made in Acrytemp
4. Temporary completed
**tropicalgin**

*chromatic*

**FAST SET 2’35”**

**Impressions for study models and antagonists**

**Recommended in pediatric dentistry**

- Colour change alginate*
- High final hardness
- Excellent impression readability
- Pleasant flavour for younger patients

*Changes colour to guide dentists during the 3 working phases*
## GUIDE TO PRODUCT SELECTION

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phase plus
chromatic

FAST SET 2'35"

 impressions for study models

» Colour change alginate*
» Creamy consistency
» High final hardness

*Changes colour to guide dentists during the 3 working phases