Dental stones classification

The international regulation EN ISO 6873/97 classifies dental stones in different types, based on their linear setting expansion and compressive strength.

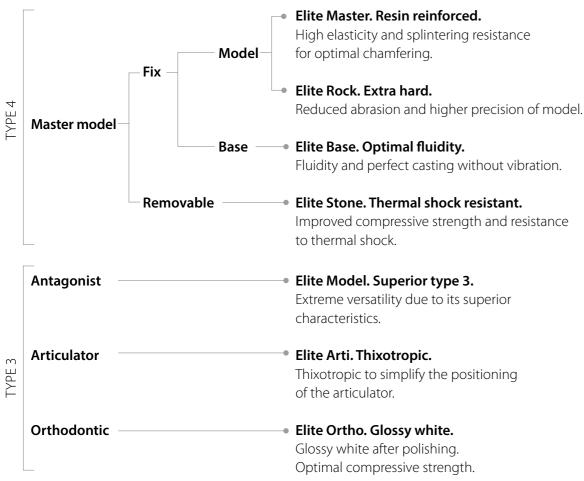
Higher type does not always mean higher quality for a stone. Type 5 stones, for example, are characterized by a high compressive strength but have also a high expansion, thus they are suitable for specific applications only.

Type 3 and 4 stones are instead the best for the dental use, because characterized by high compressive strength and low expansion that allow a higher dimensional stability over time and therefore precision in the reproduction of detail.

Туре	Linear setting expansion %				Compressive strength MPa	
	2 h		24 h		1 h	
	min.	max.	min.	max.	min.	max.
1	0.00	0.15	-	-	4.0	8.0
2 (Class 1)*	0.00	0.05	-	-	9.0	-
2 (Class 2)**	0.06	0.30	-	-	9.0	-
3	0.00	0.20	-	-	20.0	-
4	0.00	0.15	0.00	0.18	35.0	-
5	0.16	0.30	-	-	35.0	-

*dental plaster for mounting **dental plaster for models

Zhermack dental stones



A stone for every application

For fixed prostheses

Stone for bases | Elite Base

- Optimised to be used in combination
 with master model → same expansion (type 4)
- Easy to cast \rightarrow fluid

Stone for master model | Elite Rock or Elite Master

- Accurate reproduction of details → low expansion
- Chamfering without splintering \rightarrow resin particles
- Hard stone \rightarrow compressive strength

Stone for antagonist | Elite Model

- Cheaper than master model → type 3
- Hard stone \rightarrow compressive strength

Stone for articulator | Elite Arti

- Maintain correct occlusion → low expansion
- Simplifying positioning in the articulator \rightarrow thixotropic
- Perfect fixing with antagonist → adhesion

For removable prostheses

Stone for articulator | Elite Arti

- Maintain correct occlusion → low expansion
- Simplify positioning in the articulator \rightarrow thixotropic
- Perfect fixing with antagonist → adhesion

Stone for master model | Elite Stone

- To be used at high temperature → resistant to thermal shocks
- To be used with frameworks \rightarrow wear resistance

Zhermack //





