

Colored Gypsum Casts.

Yesos de colores.

Sneha Priya.¹

Affiliations:

¹Faculty of Dentistry, Melaka, Manipal Medical College, Manipal campus, Manipal Inchara.

Corresponding author: Sneha Priya.
Faculty of Dentistry, Melaka Manipal Medical College, Manipal campus, Manipal Inchara D. No 104-16/131/D, 1st Floor, 2nd Cross, 2nd Stage, Ananth Nagar, Manipal-576104. **E-mail:** drsnehapriyak1985@gmail.com

Dental casts need to be preserved after orthodontic therapy as patients' treatment records. Dental casts also need to be preserved in the field of pediatric dentistry until the removable appliance therapy is completed. Preliminary dental casts are an important part of the treatment phase, in aesthetic correction of anterior teeth, and for restoration wax-up on the cast before procedures.

Dental casts may need to be color-coded to differentiate between treatment phases when the treatment time is longer than three months, for easy retrieval and to enable storing treatment casts in the order of treatment given according to the x-ray data. Color coded dental casts may help the technicians improve the efficiency of the laboratory procedures done by grouping the casts treatment wise, as there are too many cases to handle at once. Though there are certain studies done on colored gypsum material in the field of civil engineering^{1,2} there is no study done in the field of dentistry on the use of colored gypsum.

We colored gypsum casts to improve the treatment phase, make it more efficient as well as to make retrieval of the casts hassle free. Currently there are no studies done on color coding of dental casts. We used poster paints as coloring agents, and used these casts as part of the treatment phase and stored the casts until treatment was completed. Gypsum Type 1 Model Plaster was mixed with 10 ml red, yellow, black and blue poster paint as additives. Laboratory cast molds were used to make the casts, and casts were allowed to set. Ultimate tensile strength was checked using a universal testing machine.

Color coding the dental casts was a novel technique using minute amounts of coloring pigment to improve patient record keeping and efficiency of the treatment delivered. Color-coded dental casts play a useful role in delineating treatment phases, allow for easier identification, and constitute a better way to store them with their respective radiographs while treatment is on-going. Since only a few drops of poster color pigment are used, ultimate tensile strength was not altered. Few studies in the field of civil engineering have adopted colored gypsum products in building structures.

In Dentistry, its major use is in better storage of patient models during treatment and improved efficiency in handling a higher number of cases. Its use is more pronounced in orthodontics as the treatment duration is usually 1.5 to 2 years, and the casts need to be made at every phase of the appliance therapy. Coloured gypsum models are a boon to the lab assistants to tell apart different phases, or to color code the models based on different branches of dentistry. We observed that color coded casts make treatment efficient in the field of orthodontics, is useful during

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long treatment phases, makes full mouth rehabilitation treatment less cumbersome, improve the work with the laboratories, and these can keep colored casts

stored during the duration of treatment, which in turn improves the overall steps involved in the treatment, and improves communication between technicians.

Figure 1. Colored Gypsum Casts.



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