

1. Description

DURASPLINT® is a high transparent cold cure resin, specifically developed for adjustment on pressure moulded splints. Its characteristic features are easy mixing, controlled modelling, excellent stability, great variety of application, easy polishing and optimal grinding-in. Bonding to most known thermoplastic materials (pressure moulding material) is done chemically. DURASPLINT® is fabricated on the basis of methyl methacrylate, is cadmium-free and contains tertiary amines for polymerisation. In case of appropriate application, the rules for biological tolerability acc. to DIN/EN ISO 10993 as well as DIN/EN ISO 7405 are observed.

DURASPLINT® is destined solely for dental applications as described above, in special cases even the fabrication of complete splints is possible. Doing so, compared to pressure moulded splints, a certain brittleness has to be considered; this should be taken into account when measuring the models initially in order to exclude any breaks.

2. Processing Hints / Application

2.1 Preparation

Fabrication of the pressure moulded splints with the insulating and tension regulating foil ISOFOLAN® is done according to the manufacturer's specifications. It is recommended to use a precise pressure moulding machine, such as the BIOSTAR® or MINISTAR® machine. In order to avoid thermal tensions and unprecise fitting of the splint due to polymerisation of DURASPLINT®, after pressurizing, the splints should be finished only coarsely along the model bottom. The splint should be removed from the model only after polymerisation.

2.2 Insulating

Apply just a thin layer of orthodontic insulating agent (REF 8364) to the antagonist jaw.

2.3 Indication

Mix DURASPLINT® in a RESIMIX® cup according to the below recommendations and apply it directly to the splint material (DURASOFT® pd or DURAN®), in case of major adjustments for anterior tooth or canine guidance a silicone wall may be used for easier modelling. Exceeds of monomer can be removed by blowing dry shortly the adjustments. Splint junctions as well as slightly polymerised areas (white coloring/whitening) can be moistened by means of monomer and brush.

For best results, we recommend sandblasting the splint surface with aluminium (50µm, 2 bar) before applying.

2.4 Working parameters

The indicated data are recommended standard values which might be influenced e.g. by room temperature.

Working time: 5 – 8 min.

Mixing ratio in volume percent: 1 (Monomer) : 2,5 (Polymer)

This leads to the following quantity recommendations for mixing in the enclosed measuring cups:

Partial adjusting (e. g. anterior tooth guidance)

4 ml Monomer : 10 ml Polymer

Complete adjusting

8 ml Monomer : 20 ml Polymer

Polymerisation: Temperature approx. 45 – 48 °C / ~113 °F. ♦ pressure 1.8 – 2.0 bar / ~30 p.s.i. ♦ time 15 – 20 min.

DURASPLINT® can be used in the "salt and pepper" technique, too.

Hint:

In case the temperature is set too low, the product won't polymerise and cure completely.

In case the temperature is set too high, the material might turn yellow.

2.5 Dyeing

DURASPLINT® can be used with all available STEADY-RESIN coloured monomers.

3. Finishing

After polymerisation DURASPLINT® can be finished e. g. by means of HM-carbide burs and polished conventionally. Breathing protection and suction device are recommended. In order to minimise the percentage of monomer residues for hypersensitive patients, it is advisable to keep the DURASPLINT® in water for several hours.

4. Storage

Polymer and Monomer bottles should not be exposed to direct sun or heat, as polymerisation reactions might occur. The material should always be stored in closed bottles in dry, cool places (at 25 °C max.), protected against light.

5. Emergency Hints

Liquid is highly flammable! May cause irritations of eyes, skin and respiratory system. Keep away from all sources of ignition, store at well-ventilated places, prevent liquid from entering canalisation. Avoid longer skin contact with not polymerised material as well as inhalation of monomer vapours. In single cases allergic reactions to components of DURASPLINT® might occur (e. g. to methyl methacrylate, N, N-Bis(2-hydroxyethyl-p-toluidine) or dibenzoylperoxide). Material Safety Data Sheets are available on request. All fabrication recommendations of our materials – verbal, written or practical – are given to the best of our knowledge and have to be understood as hints. Use and application are beyond our control and are subject to the responsibility of the user.

