**TECHNICAL BULLETIN**  
**INSTRUCTIONS**

**LIGHT SUPER BOND-M**  
LIGHT-CURED ORTHODONTIC ADHESIVE FOR METAL, PLASTIC, AND CERAMIC BRACKETS

<table>
<thead>
<tr>
<th>SYRINGE KIT</th>
<th>SINGLE DOSE CAPSULES KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 g of Adhesive</td>
<td>60×.35 g of Adhesive</td>
</tr>
<tr>
<td>7 g-Bonding Agent</td>
<td>7 g-Bonding Agent</td>
</tr>
<tr>
<td>12 g-Enamel Conditioner</td>
<td>12 g-Enamel Conditioner</td>
</tr>
</tbody>
</table>

**ACCESSORIES, INSTRUCTIONS**

**OUTSTANDING FEATURES OF THE MATERIAL**

- Unlimited working time—cures on demand with a visible light curing unit.
- Economical—no mixing—no waste.
- Viscosity—Light Super Bond-M paste consistency eliminates bracket flotation.
- Bracket compatibility—designed to be used with ceramic, plastic, or metal brackets.

**INTRODUCTION**

Light Super Bond-M represents an up-to-date state of technology, offering the most desirable characteristics, in versatility, ease of handling, esthetics and reliability. The material is designed for direct bonding of ceramic, plastic and metal orthodontic brackets. Due to the fact that Light Super Bond-M is a light cure material there is a relief from time pressure which contributes to ease of working with the material. The dentist has plenty of time for cleaning the excess adhesive around the bracket bases.

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Revision #2. Revised on 1-5-15
INSTRUCTIONS FOR USE

PREPARATION OF THE TEETH
1. Thoroughly clean teeth to be bonded with plain pumice. Prophy paste which contains an oil of fluoride should not be used as this can leave residue which may inhibit the etch. Rinse teeth completely with a large amount of water. Dry with oil/moisture-free compressed air.
2. With a cotton pledget, etch the isolated tooth with Enamel Conditioner for 30 seconds. Do not place etchant on soft tissue!
   Remove cotton rolls after 30 seconds. Allow 120 seconds of etching for deciduous teeth. Wash the tooth with water, evacuating with a saliva ejector. Do not allow the patient to rinse or contaminate the etched surface. Re-isolate and dry completely using oil/moisture free compressed air. The conditioned area should appear dull and frosty white. If not, re-etch for an additional 20 seconds.

APPLICATION OF BONDING / SEALANT RESIN
Dispense one or two drops of the light cure bonding/sealant resin onto a mixing pad. Apply a thin layer of the resin onto etched enamel surface. The bonding/sealant resin may be cured at this time to minimize bracket flotation. Saliva contamination can be cleaned by dabbing the cured bonding/sealant resin with alcohol. If a filled bonding/sealant resin is used, it must be cured first for 20 seconds. The bond can be further strengthened by painting a thin coat of bonding/sealant resin onto mesh pad of the metal bracket and curing for 10 seconds before applying the paste.

ADHESIVE BONDING
A. Dispense from a small quantity of adhesive paste onto each clean bracket base (plastic, metal or ceramic). Use as little material as needed to provide complete coverage of the base.
B. Immediately after applying adhesive, lightly place bracket onto tooth surface, taking care not to exert excess pressure so that all paste does not exude from under the bracket. If a metal bracket is being used, shine the curing light form the gingival and incisal edges and cure for a minimum of 15 seconds each. Curing may be done directly through a ceramic bracket for 20 seconds. Since different curing lights have different intensities, these times may vary somewhat from lamp to lamp.
C. Long axis indicators may be removed and archwires placed immediately after bonding of the last bracket.

BRACKET REMOVAL
To remove a bracket, use a ligature cutter and grab the adhesive at the enamel/adhesive interface and separate from the tooth surface. Any remaining sealant can be removed with a scaler.

PRECAUTIONS AND WARNING
* Uncured orthodontic bonding material may cause irritation. Wash hands after handling the material. For better protection, individual, users should wear protective gloves and protective eye wear.
* The bonding material is formulated to be used at room temperature.
* Never use disposable spatula a second time. A used spatula would be a source of contamination.
* Avoid contact of etchant with soft tissue.
* Etchant contains 37% Phosphoric Acid which is harmful to skin and eyes. In case of contact, flush with water. Seek medical assistance immediately in case of eye contact for proper treatment.

STORAGE
* Refrigeration will extend shelf life.
* Do not store materials in proximity to eugenol-containing products.
* Do not expose materials to elevated temperature or intense light.
* Keep syringes tightly capped between uses.

Revision #2. Revised on 1-5-15
MATERIAL SAFETY DATA SHEET

SECTION I  Product/Company Identification
1.1 Product Trade Name: Light Super Bond-M
1.2 Address: Dent Zar, Inc.
   City, State, Zip: 19643 Trull Brook Dr Tarzana, CA 91356, U.S.A.
1.3 Emergency Telephone Number: 818-857-3010
1.4 Information Telephone Number: (800)444-1241
1.5 Date Revised: October, 2011

SECTION II  Hazardous ingredients/Identity Information
<table>
<thead>
<tr>
<th>Hazardous Components:</th>
<th>CAS NO.</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>OTHER LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol diglycidylmethacrylate (Bis-GMA) [1565-94-2]</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Blend of multifunctional methacrylates</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Barium-aluminum-boro-silica-glass</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Photo initiator</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Sodium Fluoride [7681-49-4]</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

SECTION III  Physical/Chemical Characteristics
3.1 Boiling point: N/A
3.2 Vapor pressure: N/A
3.3 Vapor density: N/A
3.4 Solubility in water: Insoluble
3.5 Appearance and odor: Viscous tinted paste. Slight acrylic odor.
3.6 Specific Gravity: (H2O =1) N/E
3.7 Melting Point: N/A
3.8 Evaporation rate: (Butyl Acetate = 1) N/A

SECTION IV  Fire and Explosion Hazard Data
4.1 Flash point (method used): N/A
4.2 Flammability (explosive limits): LEL: N/A UEL: N/A
4.3 Extinguishing media: Carbon dioxide, chemical foam or dry chemical.
4.4 Special Fire Fighting Procedures: None
4.5 Unusual fire and explosion hazards: Not known as to date.

SECTION V  Reactivity Data
5.1 Stability: Unstable: Stable: X
5.2 Conditions to avoid (stability): Temperatures above 24ºC, 75ºF, direct sunlight, or high intensity light (greater than 10.000 lux).
5.3 Incompatibility (material(s) to avoid): Peroxides; strong oxidizing agents.
5.4 Hazardous decompositions or byproducts: N/A
5.5 Hazardous polymerization: May occur: Will not occur: X

SECTION VI  Health Hazard Data
6.1 Route(s) of entry: Inhalation?: N/A Skin?: Yes
   Ingestion?: Yes
6.2 Health hazards (acute and chronic): Skin irritation may occur for some people with pre-existing skin sensitivity. Uncured resins may cause eye irritation.
6.3 Carcinogenicity: NTP?: N/A IARC monographs?: N/A
   OSHA Regulated?: N/A
6.4 Signs and symptoms of exposure: Itching, redness, burning sensation on skin of sensitive persons. Severe eye irritation.
6.5 Medical conditions generally aggravated by exposure: Allergic or pre-existing skin sensitivity may be aggravated.
6.6 Emergency first aid procedures:
   Skin: Wash off with soap and water. If irritation persists. Consult a physician
   Ingestion: Do not induce vomiting, seek medical attention.
   Inhalation: N/A
   Eye Contact: Flush eyes with plenty of water, seek medical attention.
SECTION VII Precautions for Safe Handling and Use

7.1 Steps to be taken in case material is released or spilled: Clean up using gloves, wiping with paper towels. Dispose in an approved manner.

7.2 Waste disposal methods: Dispose according to local, state and federal regulations.

7.3 Precautions to be taken in handling: Store 10ºC/50ºF to 24ºC/75ºF. Do not freeze. Bring to room temperature before using (22ºC/72ºF).

7.4 Other Precautions: Do not take internally. Wash hands after use.

SECTION VIII Control Measures

8.1 Respiratory protection: Generally not necessary.

8.2 Ventilation: Local exhaust recommended.

8.3 Protective gloves: Recommended.

8.4 Eye protection: Recommended.

8.5 Other protective clothing or equipment: None

8.6 Work/Hygienic practices: Normal safe practices. Use only in a highly professional manner.

<table>
<thead>
<tr>
<th>NEPA HAZARD CLASSIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Flammability</td>
</tr>
<tr>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
</tr>
</tbody>
</table>

NFPA- National Fire Protection Association
N/A- Not Applicable
N/E- Not Established