

ALPHA-CEM[®] DC

DUAL CURE RESIN-BASED
DENTAL LUTING MATERIAL



Description:

Alpha-Cem[®] DC is a Dual Cure Resin-Based Luting Material containing 41% by volume of a blend inorganic radio-opaque fillers with particle range from 0.04 to 2.2 microns possessing unsurpassed physical properties. The organic matrix oligomer is based on Bis-GMA. It is specially formulated for permanent cementation of esthetic ceramic/porcelain, etched metal resin bonded, or composite fixed prosthesis. **Alpha-Cem[®] DC** is available in one highly translucent shade that will optimally adapt to the restorations and surrounding tooth surface.

Indications for Use:

Alpha-Cem[®] DC is recommended for cementation of implant prosthesis, crowns and bridges, inlays, Maryland Bridges, veneers, posts, pins, and periodontal splinting.

Contraindications:

Alpha-Cem[®] DC is contraindicated in patients with a history of severe allergic reaction to methacrylate resins.

Warning:

- Always replace the cap after each use. Avoid contact of etchant with soft tissue, eyes and skin. **Alpha-Etch37[®]** contains phosphoric acid, which is harmful. In case of contact with soft tissue, eyes or skin immediately flush with water for at least 15 minutes. In case of contact with eyes, seek immediate medical attention for appropriate treatment.

General Precautions:

1. U.S. Federal Law restricts this device to sale by or on the order of a dentist.
2. Review instructions and MSDS prior to beginning treatment. Use only as directed.

Adverse Reaction:

Allergic or pre-existing skin, eye and respiratory conditions may be aggravated by exposure to this product.

INSTRUCTIONS FOR USE

Tooth Preparation:

1. Remove the temporary restoration; clean the preparation and try-in restoration. If eugenol containing temporary cements were used, use pumice to remove all traces of cement followed by an alcohol cleansing. Eugenol may inhibit polymerization of **Alpha-Cem[®] DC**.

2. Apply the **Alpha-Etch37[®]** 37% phosphoric acid Etchant Gel to the prepared tooth. Etch enamel for 15 seconds or if applied to dentin etch for 10 seconds; never leave etchant on tooth for more than 60 seconds. Lightly agitating the etchant during its application can enhance its action.
3. Rinse thoroughly with water and dry the tooth completely.
4. Apply thin uniform layer of **Alpha-dent[®]** Chemical Cure Bonding Resin onto dry prepared tooth.

RESTORATION PREPARATION

Ceramic/Porcelain Preparation:

1. Sandblast the internal surface of the restoration for 1-2 seconds and apply appropriate Hydrofluoric Acid etchant following the manufacturer's instructions.
2. Rinse the etched restoration with plenty of water and dry thoroughly.
3. Apply one or two coats of Porcelain Conditioner (silane) to the internal surface of the restoration for 60 seconds. Air dry the conditioned porcelain to evaporate the remaining volatiles.
4. Apply thin uniform layer of **Alpha-dent[®]** Chemical Cure Bonding Resin onto dry conditioned porcelain.

Composite Resin Restoration Preparation:

1. Sandblast the internal surface of the restoration for 1-2 seconds. Rinse with water and thoroughly dry.
2. Apply thin uniform layer of **Alpha-dent[®]** Chemical Cure Bonding Resin onto dry restoration.

Restoration Bonding and Cementation:

1. Dispense equal amounts; one or two drops of each of the **Alpha-dent[®]** Catalyst and Base Bonding Resin onto a mixing pad or other suitable surface. Mix thoroughly for 5 to 10 seconds.
2. Thoroughly saturate a brush tip and generously apply one uniform layer onto the etched tooth and prepared restoration. **Alpha-dent[®]** Self Cure Bonding Resin will begin to harden within 45 seconds from the start of mixing. After 45 seconds, placement of the **Alpha-Cem[™] DC** should proceed.
3. Dispense equal amounts of **Alpha-Cem[®] DC** base and catalyst on a mixing pad. Mix thoroughly for 20 seconds. While mixing make sure not to expose cement to direct sunlight or other intensive lighting sources. The working time is 120 seconds from the start of mixing.
4. Apply **Alpha-Cem[®] DC** on the inside surface of the restoration (avoid entrapment of air).
5. Place the restoration with gentle pressure.
6. Remove excess cement from margins with blunt explorer or other suitable instrument immediately.
7. Light cure each surface of the restoration for 40 seconds. Allow 8 minutes for the **Alpha-Cem[®] DC** to harden.

Storage:

Refrigeration is recommended. Store material between 2°C/36°F to 27°C/80°F. Always bring to room temperature before using (22°C/72°F). Do not Freeze. See outer package for expiration date.

DENTAL
TECHNOLOGIES

6901 N. HAMLIN AVENUE
LINCOLNWOOD, ILLINOIS 60712 USA

www.dentaltech.com



SECTION I - Product/Company Identification

1.1 Product Trade Name: ALPHA-CEM® DC DUAL CURE RESIN-BASED LUTING CEMENT - BASE PASTE
1.2 Part (Item) Number(s): 308-0101-002
1.3 Manufacturer: DENTAL TECHNOLOGIES, INC.
1.4 Address: 6901 N. HAMLIN AVENUE, LINCOLNWOOD, IL 60712 U.S.A.
1.5 Emergency Telephone Number: (800) 424-9300/(703) 827-3887 (Chemtec)
1.6 Information Telephone Number: (800) 835-0885/(847) 677-5500
1.7 Date Revised: 06-May-05

SECTION II - Hazardous Ingredients/Identify Information

Hazardous Components:	OSHA PEL	ACGIH TLV	OTHER LIMITS
Bisphenol A diglycidylmethacrylate	N/E	N/E	
(Bis-GMA)	N/E	N/E	
Blend of multifunctional methacrylates	N/E	N/E	
Barium-aluminum-boro-silica-glass	N/E	N/E	
[65997-18-4]	N/E	N/E	
Photo Initiator	N/E	N/E	

SECTION III - Physical/Chemical Characteristics

Physical/Chemical Characteristics	OSHA PEL	ACGIH TLV	OTHER LIMITS
Flash point (method used):	N/A	N/A	
Flammability (explosive limits):	N/A LEL: N/A	UEL: N/A	
Extinguishing media:	Carbon dioxide, chemical foam or dry chemical.		
Special Fire Fighting Procedures:	None		
Unusual fire and explosion hazards:	Carbon monoxide and irritating gas may be produced during fire.		

SECTION IV - Fire and Explosion Hazard Data

Fire and Explosion Hazard Data	Stability:
1 Boiling Point:	N/A
2 Vapor Pressure:	N/A
3 Vapor Density:	N/A
4 Solubility in water:	Insoluble
5 Appearance and odor:	Light beige viscous paste, with faint acrylic odor.
6 Specific Gravity: (H ₂ O = 1)	> 1
7 Melting Point:	N/A
8 Evaporation rate: (Butyl Acetate = 1)	N/A

SECTION V - Reactivity Data

Reactivity Data	Stability:
1 Boiling Point:	N/A
2 Vapor Pressure:	N/A
3 Vapor Density:	N/A
4 Solubility in water:	Insoluble
5 Appearance and odor:	Light beige viscous paste, with faint acrylic odor.
6 Specific Gravity: (H ₂ O = 1)	> 1
7 Melting Point:	N/A
8 Evaporation rate: (Butyl Acetate = 1)	N/A

SECTION VI - Health Hazard Data

Health Hazard Data	Routes of entry:	Ingestion?	Yes	No
1 Routes of entry:	Skin? Yes	Ingestion?	Yes	No
2 Health hazards (acute and chronic):	Skin irritation may occur for some people with pre-existing skin sensitivity. Uncured resins may cause eye irritation.			
3 Carcinogenicity:	OSHA Regulated? N/A	NTP? N/A	IARC monographs? N/A	
4 Signs and symptoms of exposure:	itching, redness, burning sensation on skin of sensitive persons.			
5 Medical conditions generally aggravated by exposure:	Allergic or pre-existing skin sensitivity may be aggravated.			
6 Aggravated by exposure:	Skin: Wash off with soap and water. If irritation persists consult a physician.	Ingestion: Do not induce vomiting, seek medical attention.		
Eye Contact:	N/A	Inhalation: N/A		
Flush eyes with plenty of water, seek medical attention.				

SECTION VII - Precautions for Safe Handling and Use

Precautions for Safe Handling and Use	Respiratory protection:	Generally not necessary
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.	
2 Waste disposal methods:	Dispose according to local, state and federal regulations.	
3 Precautions to be taken in handling:	Store between 2°C/36°F to 27°C/80°F. Do not freeze. Bring to room temperature before using (22°C/72°F).	
4 Other precautions:	None.	

SECTION VIII - Control Measures

Control Measures	Respiratory protection:	Generally not necessary
1 Respiratory protection:	None required in normal use.	
2 Ventilation:	Recommended.	
3 Protective gloves:	Recommended.	
4 Eye protection:	Recommended.	
5 Other protective clothing or equipment:	None.	
6 Work/Hygienic practices:	Normal safe practices, use only in a highly professional manner.	

NFPA HAZARD CLASSIFICATIONS

Health	Flammability	Reactivity
1	0	1

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

CAUTION: PRODUCT FOR PROFESSIONAL USE ONLY
The above information is based on present available data and to our best knowledge for handling the product in normal conditions. Any use of this product in any way not indicated on this document or using the product is not recommended.

SECTION I - Product/Company Identification

1.1 Product Trade Name: ALPHA-CEM® DC DUAL CURE RESIN-BASED LUTING CEMENT - CATALYST PASTE
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3 Vapor Density:	N/A
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6 Specific Gravity: (H ₂ O = 1)	> 1
7 Melting Point:	N/A
8 Evaporation rate: (Butyl Acetate = 1)	N/A

SECTION VI - Health Hazard Data

Health Hazard Data	Routes of entry:	Ingestion?	Yes	No
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3 Carcinogenicity:	OSHA Regulated? N/A	NTP? N/A	IARC monographs? N/A	
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5 Medical conditions generally aggravated by exposure:	Allergic or pre-existing skin sensitivity may be aggravated.			
6 Aggravated by exposure:	Skin: Wash off with soap and water. If irritation persists consult a physician.	Ingestion: Do not induce vomiting, seek medical attention.		
Eye Contact:	N/A	Inhalation: N/A		
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