

# EtchMaster® - Micro Air Abrasive Tip

US & Int'l Patents Pending ♦ EtchMaster® is a trademark of Groman Inc.



## USER INSTRUCTIONS

2008 © Groman Inc PUB-520-H

Phone: 800-906-9298

**GENERAL OPERATION** - The EtchMaster® tip is a disposable single-use self-contained air abrasion device that is powered by house air available at every dental chair.

The EtchMaster® tips are available in 4 abrasive grades:

Type	Abrasive Powder	Usage/Procedures	Tip Color
BE - Bond Enhancer	Hard abrasive - 27 micron Aluminum Oxide	Restorative, preventive sealants, and cosmetic bonding	RED
BE/50 - Bond Enhancer	Hard abrasive - 50 micron Aluminum Oxide		BLACK
SP - Surface Polisher	Mild abrasive - 25% - Aluminum Oxide 75% - Sodium Bi-Carbonate	Preventive sealants and cosmetic stain removal	BLUE
PB - Prophy Brush	Soft Abrasive - Sodium Bicarbonate	Light stain removal and pits & fissure brushing	GREEN

There are FOUR ways to power the EtchMaster® Tips:

♦ 4 Hole Handpiece Adapter ♦ Quick Disconnect Adapter ♦ Kavo Style Adapter ♦ Cordless Etcher™ HP

Adapter installation instructions are provided with adapter purchase.

Please Check [www.DisposableAirAbrasion.com](http://www.DisposableAirAbrasion.com) web site for installation details.

The EtchMaster® may be utilized in a continuous sweep over the target area or in a pulsating operation. Higher operating pressures provide faster abrasion rates. For most efficient and comfortable operation 35-45 psi is recommended. The nozzle is held about 1mm from the tooth surface; holding the instrument further away from the target surface increases the size of the affected surface while reducing the powder impact.

**INDICATIONS FOR USE** - For polishing, roughening and/or etching of tooth surfaces, enamel, dentin, and dental restorations for adhesive restorative procedures.

**SAFETY** - Read the instructions and **MSDS on backside** carefully before using this device. The manufacturer, distributor, or retailer of this product can exercise no control over the use of the EtchMaster®.

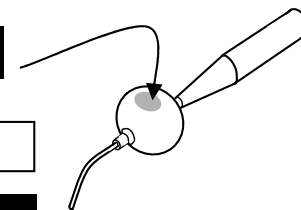
- This is a disposable device. Dispose after single patient use regardless of the remaining quantity of powder.
- DO NOT attempt to sterilize, refill or reuse.
- Mounting and pressurizing the device more than once will degrade device operation.
- Federal Law restricts this device to sale by or on the order of a licensed dentist.
- Rubber dam must be used to protect adjacent teeth and soft tissue. Matrix band should be used to protect adjacent teeth during interproximal preparation.
- Due to the alumina powder, it is necessary to protect the eyes of anyone present in the treatment room during the procedure, namely the patient, assistant and dentist. For patient protection goggles and/or face (eyes and nose) covering with powder resistant material is recommended. All treatment room personnel should already be wearing eye protection. We recommend dental personnel wear face shields over safety glasses and masks for extra protection.
- Do not use oxygen or other flammable or toxic gases as propellant.
- Excessive air abrading will erode most surfaces. Practice and experiment on tyodonts, pennies, stainless steel, extracted teeth, or glass slides before actual use. These surfaces will simulate both precious and non-precious alloys and porcelain.

**CAUTION:** Do not point the EtchMaster® nozzle towards your face or eyes. Always wear protective safety glasses when using this device. NEVER refill and/or reuse the device once it has run out of material. Safely dispose after use.

**IMPORTANT** - REVIEW SAFETY PRECAUTIONS PRIOR TO USE. Manufacturer is not responsible for damages due to misuse of the product.

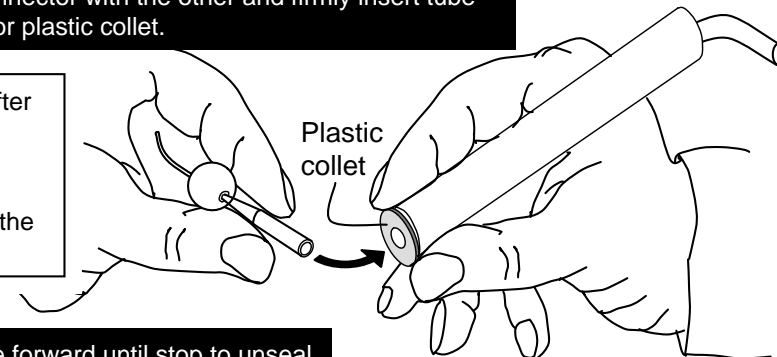
**STEP 1** - Check tip color code mark to identify abrasive grade

Red or Black- Hard      Blue - Mild      Green - Soft



**STEP 2** - Hold tube end of the EtchMaster® tip with one hand and the handheld connector with the other and firmly insert tube end into the connector plastic collet.

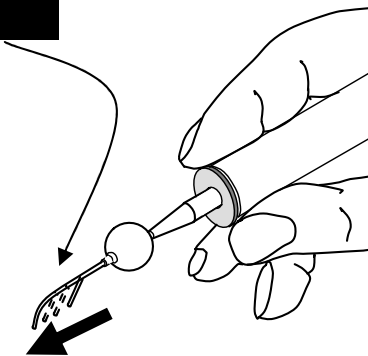
**IMPORTANT** - After insertion pull on EtchMaster® to ensure secure engagement with the connector.



**STEP 3** - Pull needle forward until stop to unseal abrasive material.

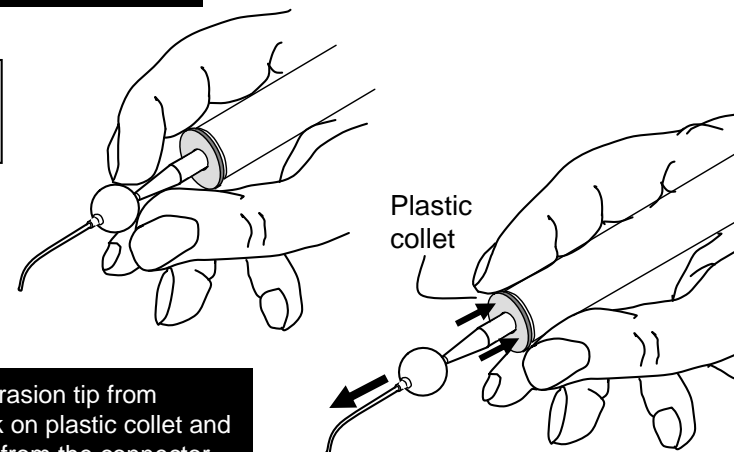
**Note** - Turning nozzle prior to pulling reduces required pulling strength.

EtchMaster® tip is now operational



**STEP 4** - Direct nozzle at target surface and apply air flow.

Discard EtchMaster® Post-Op or once powder is depleted.



**STEP 5** - Remove air abrasion tip from connector by pulling back on plastic collet and then pulling device away from the connector.

**Materials Safety Data Sheet**  
Aluminum Oxide

**SECTION I – General Information**

Manufacturer's Name:	Groman Inc.
	4900 NW 15 <sup>th</sup> Street, Suite 4494
	Margate, FL 33063
Telephone:	(954) 649-8008
Company Contact:	Compliance Manager
Date (Revised):	October 12, 2004
Product/Trade Name:	Fused Aluminum Oxide
Synonyms:	Alpha Alumina
Chemical Family:	Refractory Oxide
Formula:	Al <sub>2</sub> O <sub>3</sub>

**SECTION II – Hazardous Components**

None

**SECTION III – Physical Data**

Melting Temperature:	3700 Degrees F (2038 degrees C)
Specific Gravity:	3.97 gm/cc
Hardness:	9 Mohs scale; 2100 Knoop Scale
Water Solubility:	Insoluble in water and organic solvents
pH:	7-8
Color:	Light brown or white
Odor:	None, odorless

**SECTION IV – Fire & Explosion Data**

Non-flammable; does not support combustion. Not an explosion hazard.

**SECTION V – Health Data**

Chemical Name	C.A.S. NO	Percent	Limits for air contaminants	
			TWA Mg/M3	PEL Mg/M3
Alpha Alumina (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	99+%		
Total Dust			10(e)	15
Respirable Fraction			5	5

**Source of Exposure Limit Data**

ACGIH Threshold Limit Values; OSHA Tables: Z-1-A, Z-2, Z-3

Possible effects of Overexposure: Individuals with lung disorders should not be exposed to conditions where large airborne quantities of the nuisance dust exist without precautions taken to alleviate the aggravated preexisting medical condition.

Inhalation:	Choking sensation, respiratory system passageways irritation.
Skin Contact:	No evidence of adverse effects expected.
Eye Contact:	May cause Irritation.
Swallowing:	Non-toxic. May cause irritation of the throat and digestive passageways.
Carcinogen:	No evidence of carcinogenicity.

**SECTION VI – Reactivity Data**

None with water, air, heat, or strong oxidizers.

**SECTION VII – Environmental**

Waste may be considered as inert material.

**SECTION VIII – Handling, Storage, Transportation**

Stable under normal conditions of use, transportation, and storage.

Spill, leak and disposal: Avoid dust during cleanup.

**SECTION IX – Special Precautions**

Use with adequate ventilation to meet exposure limits. When exposure is excessive, NIOSH approved respiratory protection should be used.

**Materials Safety Data Sheet**  
Sodium Bicarbonate

2008 © Groman Inc.  
PUB-463D

**SECTION I – General Information**

Manufacturer's Name:	Groman Inc.
	4900 NW 15 <sup>th</sup> Street, Suite 4494
	Margate, FL 33063
Telephone:	(954) 649-8008
Company Contact:	Compliance Manager
Date (Revised):	August 10, 2006
Product/Trade Name:	Sodium Bicarbonate
Synonyms:	Baking Soda
Chemical Family:	Alkali
Formula:	NaHCO <sub>3</sub>

**SECTION II – Hazardous Components**

None

**SECTION III – Physical Data**

Melting Temperature:	N/A
Specific Gravity:	60 Lb/ft <sup>3</sup> @ 72 °F
Hardness:	N/A
Water Solubility:	16g/100ml @ 60 °C
pH:	7-8
Color:	White powder
Odor:	None, odorless

**SECTION IV – Fire & Explosion Data**

Non-flammable; does not support combustion. Not an explosion hazard.

**SECTION V – Health Data**

Inhalation (acute):	Choking sensation, respiratory system passageways irritation- May cause coughing, shortness of breath. Provide fresh air, apply artificial respiration as needed. Obtain first aid or medical assistance, if needed.
Skin Contact:	Not absorbed through skin. No evidence of adverse effects expected.
Eye Contact:	May cause Irritation - Wash with large amounts of water, obtain first aid or medical assistance, if needed.
Swallowing:	Gross ingestion (1/2lb+) may cause Alkalosis; However, as a natural material in the body its is well tolerated. Other potential health risks not known.
Carcinogen:	No evidence of carcinogenicity.

**Source of Exposure Limit Data**

ACGIH Threshold Limit Values – N/A

Possible effects of Overexposure: Individuals with lung disorders should not be exposed to conditions where large airborne quantities of the nuisance dust exist without precautions taken to alleviate the aggravated preexisting medical condition.

**SECTION VI – Reactivity Data**

Avoid contact with Strong Acids.

**SECTION VII – Environmental**

Waste may be considered as inert material.

**SECTION VIII – Handling, Storage, Transportation**

Stable under normal conditions of use, transportation, and storage.

Spill, leak and disposal: Avoid dust during cleanup.

**SECTION IX – Special Precautions**

Use with adequate ventilation to meet exposure limits. When exposure is excessive, NIOSH approved respiratory protection should be used. See OSHA 29CFR1910.24 and 29CFR1910.1000