

If only we had a top quality
Glass Ionomer with the

STRENGTH

of an Amalgam.....



**NOW YOU HAVE!
SO WHY
COMPROMISE?**

AMALGOMER™ Technology

Advanced Dental Restoratives

The world's strongest Glass Ionomers from the leader in GIC technology

The first Glass Ionomer designed to pass the ISO tests for amalgam



**THE STRENGTH
BEHIND YOUR SMILE**

WHY COMPROMISE?

Compressive Strength @ 1 hour (MPa)	
AMALGOMER	164
AMALGOMER CR	215
Amalgam Specification	50
Typical Amalgam	122
Leading Amalgam	227

Compressive Strength @ 24 hours (MPa)	
AMALGOMER	323
AMALGOMER CR	346
Amalgam Specification	300
Glass Ionomer Specification	130
Typical Silver Reinforced Glass Ionomer	190
Leading Silver Reinforced Glass Ionomer	229

Compressive Strength @ 1 month (MPa)	
AMALGOMER	369
AMALGOMER CR	423
Leading Silver Reinforced Glass Ionomer	291

ACTA Wear Test ($\mu\text{m}/200,000$ cycles, 1 month)	
AMALGOMER	47
AMALGOMER CR	36
Leading Silver Reinforced Glass Ionomer	75
Typical Composite or Compomer	82
Leading Composite	24

Lactic Acid Jet Erosion ($\mu\text{m}/\text{hour}$)	
AMALGOMER	2.0
AMALGOMER CR	0.9
Typical Silver Reinforced Glass Ionomer	18.0
Leading Silver Reinforced Glass Ionomer	6.6

Flexural Strength – 3 Point Bend (MPa)	
AMALGOMER	38.0
AMALGOMER CR	36.3
Typical Silver Reinforced Glass Ionomer	17.2
Leading Silver Reinforced Glass Ionomer	22.2

Fracture Toughness K_{1c} ($\text{MPa}\cdot\text{m}^{-1/2}$)	
AMALGOMER	0.56
AMALGOMER CR	0.85
Typical Silver Reinforced Glass Ionomer	0.52
Leading Silver Reinforced Glass Ionomer	0.64

Youngs Modulus (Gpa)	
AMALGOMER	13.1
AMALGOMER CR	13.2
Dentine	14.7
Typical Silver Reinforced Glass Ionomer	8.6
Leading Silver Reinforced Glass Ionomer	10.8

Compressive strength to rival amalgam



Minimal Wear



All round Strength and Durability

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AMALGOMER™ ANTERIOR

- Excellent Aesthetics
- Superb Translucency
- 7 Vita® Shades: A1, A2, A3, A3.5, B2, B4 and C3
- High strength

INDICATIONS

- 1) Class V cavities (particularly erosion lesions)
- 2) Class III cavities
- 3) Posterior cavities in deciduous teeth
- 4) 'Sticky' pits and fissures
- 5) Aesthetic veneer over **AMALGOMER CR** base in permanent posterior fillings.

AMALGOMER™ CR POSTERIOR

- Ceramic Reinforcement (CR)
- Exceptionally low wear
- Universal tooth shade
- White for core build up
- Radiopaque

INDICATIONS

- 1) Class I and II cavities
- 2) Repair of amalgam restored teeth when either tooth or restoration has fractured
- 3) Base under **AMALGOMER**, amalgam and posterior composite restorations
- 4) In all classes of cavity where radiopacity is a prime requirement
- 5) As a core build up under crowns
- 6) On the root surfaces for locating overdentures
- 7) Long term temporary replacement for cusp(s)
- 8) Repair to crown margin

- Designed to match the strength and durability of amalgam
- Sustained high level of fluoride release
- Natural adhesion to tooth structure
- Good biocompatibility
- Hard snappy set with good working time
- Built on the reputation of over 60 million fillings in the UK alone
- Minimal cavity preparation needed
- Mercury and metal free
- Pack size: 12g water mix (12g/5ml Powder/Liquid type available for export markets)
- None of the shrinkage, corrosion, expansion or thermal conductivity problems associated with other filling materials
- If our competitors could achieve this they would have told you, wouldn't they?



Individual packs of **AMALGOMER CR** and **AMALGOMER**



Introductory kit

“The restoratives for today's demands”

The first Glass Ionomers designed to surpass the test properties of the Amalgam Normative Standard (ISO1559:2001) as well as the GI Standard (ISO9917:1991). Including compressive strength >300MPa.

How does **AMALGOMER Technology** work?

- Unique processing of the glass component
- Unique processing of the polyalkenoic acid (PAA) component
- Finely controlled particle size micronisation for optimum properties
- Careful formulation for optimum physical, aesthetic and handling properties

Who makes **AMALGOMER Technology**?

- Advanced Healthcare Ltd.
- Established 1986 in Kent, UK
- The leading UK manufacturer of GI cements
- Make a broad range of dental surgery materials
- Supply most major UK dealers with private label branded consumables
- Export Worldwide
- Highly respected for reliable quality products and service
- Strong R&D supported by partner resources



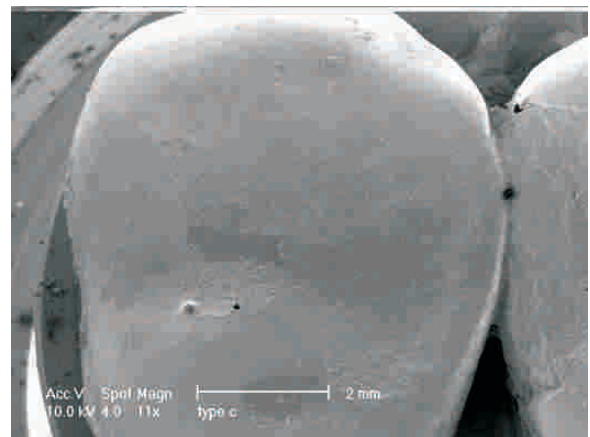
The **AMALGOMER** range of restoratives are CE marked and are manufactured in accordance with ISO 9001:2000 and ISO 13485:2003. Advanced Healthcare were the first dental company to become accredited to ISO 13485:2003, the new standard to which all medical device manufacturers must conform.

The Dental Practice Board's Dental Review 2001-2002 reported GIC's perform better in adult anterior teeth than composites ("Fillings - what are the risk factors for early re-intervention" by Steve Lucarotti). That was before GICs could achieve the strength of **AMALGOMER!**

**THE STRENGTH
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AMALGOMER restorations, disto-occlusal tooth 14 and mesio-occlusal tooth 15. Note the good interproximal contact.

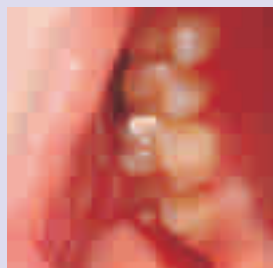


Scanning electron micrograph of the same **AMALGOMER** disto-occlusal tooth 14 restoration.

Ceramic reinforcement raises the bar further



Tooth 15 restored using **AMALGOMER CR**, including the lost palatal cusp



Molar restored in an adolescent patient using **AMALGOMER CR**

AMALGOMER CR posterior restorative, from Advanced Healthcare, is in a class of its own amongst glass ionomers. It uses **AMALGOMER Technology** to exceed 300MPa compressive strength combined with unique ceramic reinforcement for added durability and high radiopacity. ACTA

wear tests indicate a much lower wear rate than conventional glass ionomers, compomers and most composites. Erosion rates are also very low as indicated by the lactic acid jet erosion test specified in ISO9917, the glass ionomer normative standard. The all round strength of **AMALGOMER Technology** also gives it excellent resistance to fracture or cracking and the high modulus allied to chemical adhesion to the tooth structure ensures low interfacial stresses. So **AMALGOMER CR** is well capable of withstanding all the stresses of the oral environment for long lasting restorations.

AMALGOMER CR is indicated for Class I and II cavities, repair of amalgam restored teeth, base under amalgam and composite restorations, all classes of cavity where radiopacity is a prime requirement, core build up, on the root surfaces for locating overdentures, long term temporary replacement for cusps, minimal intervention treatment, ART technique and repair to crown margins.