

Product codes for ordering

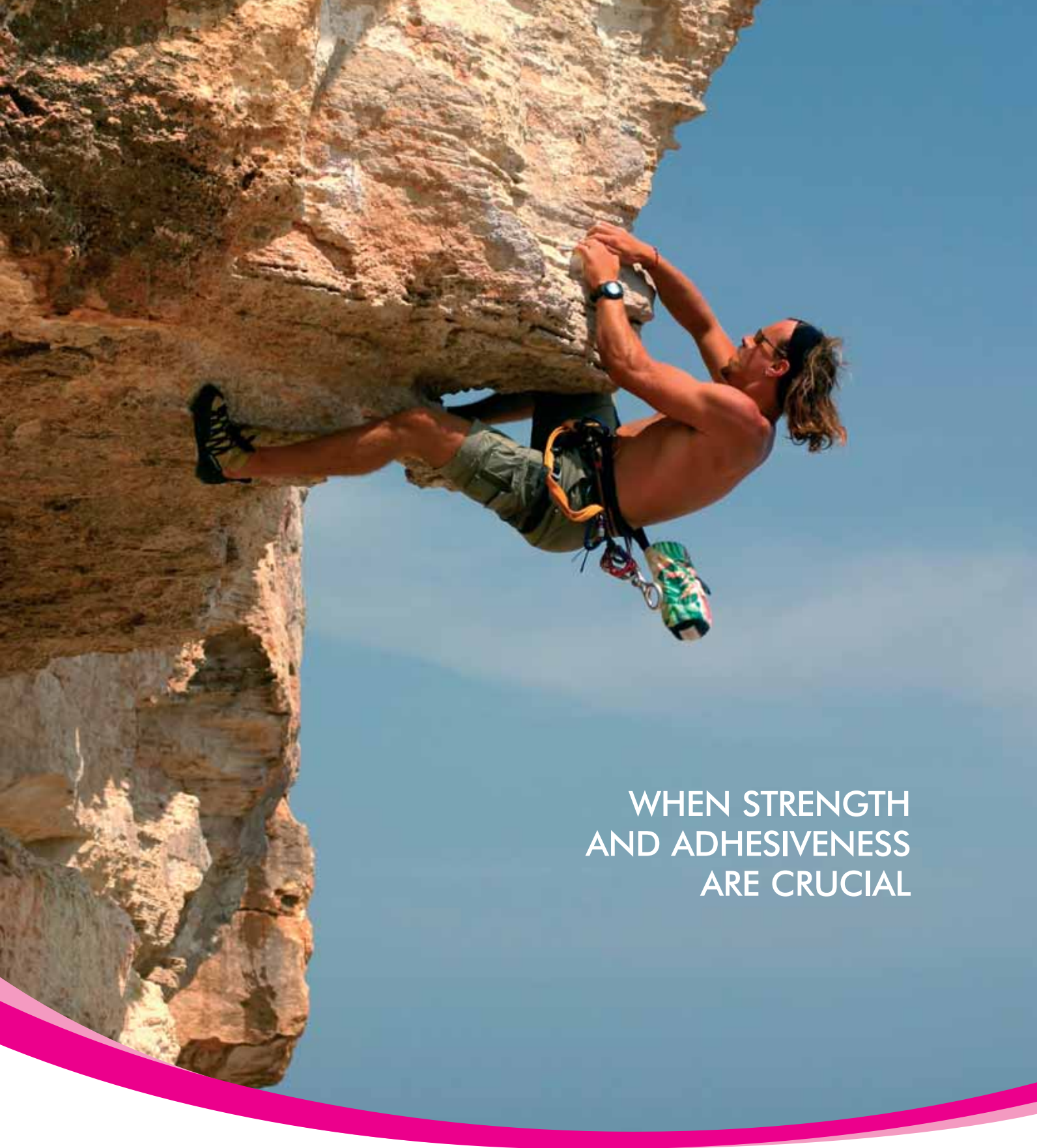
Order No:	Product	Colour	Vita® Shade
60606515	Chemfil Superior Introductory Pack Powder 7 x 10g (one of each shade), Tooth Cleanser 10ml, Accessories	–	–
60606520	Chemfil Superior Refill Pack L (2) Powder 10g, Accessories	Light	A1
60606530	Chemfil Superior Refill Pack LYG (3) Powder 10g, Accessories	Light Yellow-Grey	A2
60606540	Chemfil Superior Refill Pack LY (4) Powder 10g, Accessories	Light Yellow	C1
60606550	Chemfil Superior Refill Pack DY (5) Powder 10g, Accessories	Dark Yellow	A3
60606560	Chemfil Superior Refill Pack DG (6) Powder 10g, Accessories	Dark Grey	D4
60606570	Chemfil Superior Refill Pack LG (7) Powder 10g, Accessories	Light Grey	B2
60606580	Chemfil Superior Refill Pack GB (8) Powder 10g, Accessories	Grey-Brown	A4

Features	Benefits
Chemical bond to tooth substance	No acid etching - no extra bonding agent, minimum cavity preparation, perfect seal
Hydrophilic nature	Bonds to tooth substance even under moist conditions of the mouth
High translucency plus comprehensive shade range	Natural looking aesthetic restorations
Snap-set	Consistency unchanged during placement period with sharp final set
Withstands erosion/abrasion	Extended durability of the restoration
Fluoride containing glass	Uptake of fluoride in surrounding hydroxyapatite with continuous fluoride ion exchange
Biocompatibility	Extra pulp protection only required in very deep cavities
More than 10 years clinical success	Proven reliability

Properties of ChemFil® Superior	
Working Time	1 minute 30 seconds
Setting Time	2 minutes 10 seconds
Solubility	0.1%
Adhesion to Dentine	5 MPa
Adhesion to Enamel	10 MPa
Compressive Strength	
After 24 hours	>200 MPa
After 1 week	>250 MPa
Flexural Strength	
After 24 hours	>25 MPa
After 1 week	>45 MPa

For better dentistry

DENTSPLY



WHEN STRENGTH
AND ADHESIVENESS
ARE CRUCIAL

ChemFil®
Superior

Glass ionomer restorative with the ideal
combination of strength and adhesiveness

For better dentistry

DENTSPLY

Long term clinical success in restorative dentistry is significantly influenced by the ability of the materials used to form a strong and durable bond to the remaining tooth tissues...



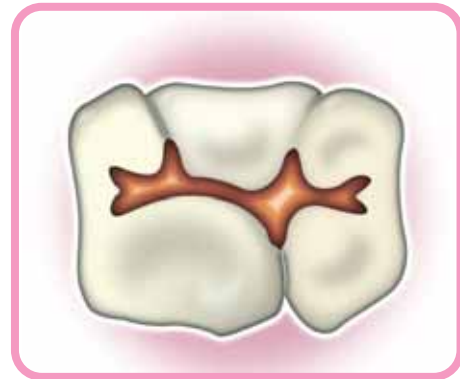
Restoration of Class V erosion, abrasion or carious lesions



Restoration of Class I and Class II lesions of deciduous teeth



Restoration of Class III lesions, (lingual approach, if possible)



Fissure filling and semi-permanent Class I and Class II restorations

ChemFil® Superior

is the glass ionomer restorative with the ideal combination of strength and adhesiveness for:

- Cavities with margins mainly in dentine.
- Cavities close to gingival margin, where total moisture control is not possible.
- Cases where cavity preparation and / or the acid etch technique are not accepted.
- Core build-up and provisional restorations where future metal or veneer crowns are contemplated.

Particular Strengths

Adhesion to dentine... that matters in the long-term

Develops the desired adhesion and establishes a true, permanent bond to hydroxyapatite even under the moist conditions of cavities close to the gingivae. Excellent adhesion of ChemFil® Superior allows a conservative approach to restoration because minimum cavity preparation is required when carious lesions are restored. Restorations with ChemFil® Superior are long-lasting and durable.

Proven long-term fluoride release

Pleasing aesthetics for more demanding patients

ChemFil® Superior facilitates superior colour match to surrounding enamel, resulting in pleasing aesthetics; moreover its colour remains unaffected by oral fluids in the long term.

'Snappy' setting

ChemFil® Superior maintains a constant viscosity during manipulation and placement, and quickly turns into a rock hard mass at the end of the working time; this ensures safe and fast restorative treatment.

Practitioner friendly

The easy-to-mix behaviour of ChemFil® Superior hand-mix allows a high powder loading for extra mechanical strength and aesthetics.



Case Study 1: Class V restorations with ChemFil® in LR3, LL4, and LL5 one year in mouth



Case Study 2: Class III restorations with ChemFil® in LR1 (mesial), LL1 (mesial + distal), LL2 (mesial) one year in mouth

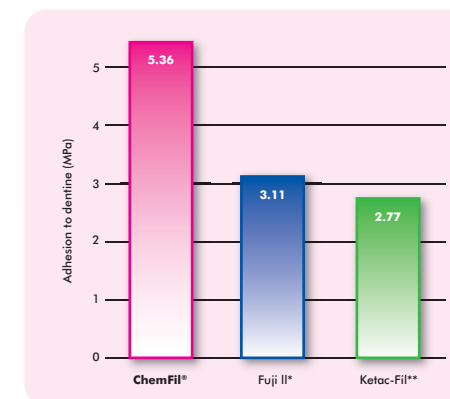


Fig 1: Adhesions of various glass-ionomer filling materials to dentine (data extracted from Aboush and Jenkins, 1986)

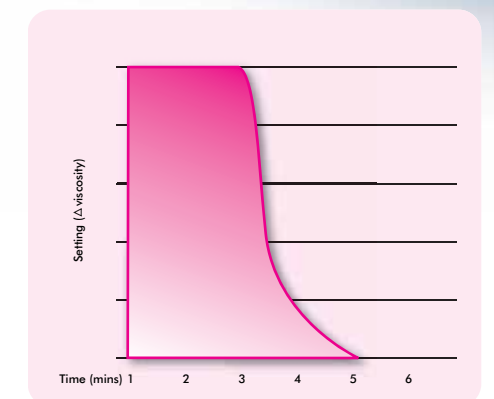


Fig 3: Rheometer curve of ChemFil® demonstrating its fast set

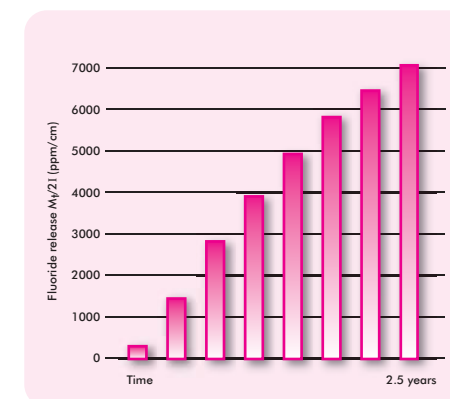


Fig 2: Graph of fluoride ion eluted for the glass-ionomer cement ChemFil®
Key: M_t = mean cumulative mass of fluoride eluted at time t , in parts per million (ppm) of fluoride ion 21 = thickness of specimen in cm. t = time in min (Tay and Braden, 1988)

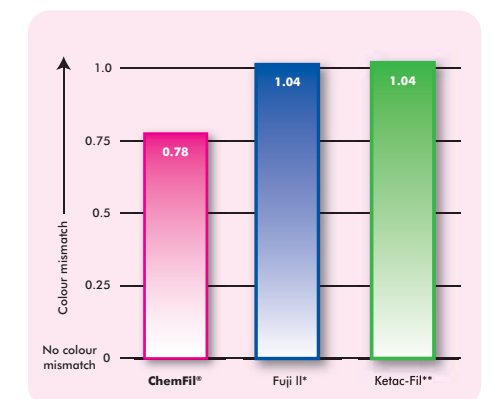


Fig 4: Means of ratings for colour match of 67 Class V glass-ionomer restorations; 0 = no colour mismatch, 1 = acceptable colour mismatch (Verdonschot, Oortwijn and Roeters, 1991)