

THE DENTAL ADVISOR™

"Improving Patient Care Through Research & Education"



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THE DENTAL ADVISOR evaluates and rates dental products and equipment by objective clinical and laboratory protocols. The publication consists of clinical evaluations, comprehensive long-term evaluations, product comparisons and specialty reports. To subscribe, please call 734-665-2020.

EDITORS

John W. Farah, D.D.S., Ph.D.
John M. Powers, Ph.D.

EMAIL

info@dentaladvisor.com

WEB SITE

www.dentaladvisor.com

Materials for Abfraction Lesions

Q *What are abfractions and are flowable composites suitable for restoring them?*

A "Abfraction" is a term used to describe non-carious cervical lesions that are caused by tooth flexure related to occlusal forces. Much evidence points to the role of occlusion in the initiation and propagation of cervical lesions, but other factors such as toothbrush abrasion, diet and salivary pH are also involved. Low-modulus resin composites, including flowables, are well suited for restoration of non-carious cervical lesions when occlusal factors are suspected. Flowable composites have a wide range of viscosities, therefore some handle better than others for cervical restorations.

Clinical Notes

- Use a small (000 or 00) retraction cord to isolate the area.
- Roughening sclerotic dentin is beneficial.
- Beveling enamel improves adhesion and esthetics.
- Post-operative sensitivity is rarely a problem, regardless of whether a total-etch or self-etch adhesive is used.
- Use of a filled adhesive can provide some stress relief at the restorative interface.
- Flowables and microfills are low-modulus materials and will flex with the tooth.
- Microfills and nanofills can be polished to an excellent and durable surface smoothness.
- Flowable composites are less likely to hold up well in larger restorations.
- Compomers provide fluoride release.
- Resin-modified glass ionomers are a nice alternative for carious cervical lesions.
- Excessive finishing can damage cementum and cause sensitivity. ■

Other Featured Products



GC UniFil Flow
(GC America)

THE DENTAL ADVISOR Recommends:

*Palfique Estelite LV (96%), 3M ESPE Filtek Flow (94%), Heliomolar Flow (94%),
Admira Flow (93%), Esthet.X Flow (92%), Flow-It! ALC (92%) and PermaFlo (91%)*



Palfique Estelite LV
(Tokuyama Dental Corp./
J. Morita USA)



Heliomolar Flow
(Ivoclar Vivadent)



Admira Flow
(VOCO GmbH)



Flow-It! ALC
(Pentron Clinical Technologies)

Product	Company	Regular Shades	Bleach Shades	Recommended Bonding Agent	Rating
3M ESPE Filtek Flow	3M ESPE	A2, A3, A4, B1, B2 & C2	na	3M ESPE Adper Single Bond Plus*, 3M ESPE Adper Prompt-L-Pop*	94%
Admira Flow	VOCO GmbH	A1, A2, A3, A3.5, A4 OA3.5	BL	Any Bonding Agent	93%
Esthet.X Flow	DENTSPLY/Caulk	A1, A2, A3, A3.5, A4, B1 & Light Yellow-gray	na	Prime&Bond NT	92%
Flow-It! ALC	Pentron Clinical Technologies	A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4, Clear, Universal Opaque, Pedo Extra Light, Pedo Light, Gingival Light, Gingival Dark, XLight White Opaque & Incisal	AO, BO	Bond-1	92%
FLOWLine	Heraeus Kulzer	A1, A2, A3, A3.5, B2, B3, OA2, OA4, OB2	na	iBOND, Gluma Comfort Bond + Desensitizer	88%
GC UniFil Flow	GC America	A1, A2, A3, A3.5, A4 & CV	na	Unifil Bond	88%
GrandiO Flow	VOCO GmbH	A1, A2, A3, A3.5, A4, B1, B2, OA2	na	Any Bonding Agent	na
Heliomolar Flow	Ivoclar Vivadent	A1, A2, A3, D3, Pedo Shade, White Enamel-T, Grey Enamel-T	na	Excite or AdheSE	94%
Palfique Estelite LV	Tokuyama Dental Corp./ J. Morita USA	High Flow: A1, A2 & A3 Medium Flow: A1, A2, A3, A3.5, Clear & Opaquer Low Flow: A1, A2 & A3	na	One-Up Bond F Plus	96%
PermaFlo	Ultradent Products	A1, A2, A3, A3.5 A4, B1, Dentin Opaquer, Pearl Opaquer & Translucent	na	PQ1	91%
PermaFlo DC	Ultradent Products	A2, A3.5, Translucent & Opaque White	na	PermaFlo DC Primer A & B	86%
Point4 Flowable	SDS/Kerr	A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4, Translucent, Gingival Pink Light, Gingival Pink Dark & Opaque	XL2, XL3	OptiBond Solo Plus	na
Revolution Formula2	SDS/Kerr	A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4, G2, Universal Opaque, White Opaque & Light Incisal	XL	OptiBond Solo Plus	na
Venus flow	Heraeus Kulzer	A1, A2, A3, A3.5, A4, B2, B3, OA2, T2, HKA2.5, Baseline White	SB1, SB2, SB0	iBOND, Gluma Comfort Bond + Desensitizer	na

na = not available

*The manufacturer recommends two coats of the adhesive and then light cure.