

# **TotalFill® BC Sealer™** & BC Sealer HiFlow™

# The "state-of-the-art" in endodontic obturation is now available for warm techniques!

Clinicians now have two distinct formulations of the same proven pre-mixed bioceramic sealer to choose from. Compared to standard BC Sealer, BC Sealer HiFlow exhibits a lower viscosity when heated and is more radiopaque, making it optimized for warm obturation techniques.



### TotalFill BC Sealer 2g

- Sealer-based technique
- Optimal for cold obturation

TotalFill BC Sealer HiFlow 1.5g

- Condensation-based technique
- Optimal for warm obturation
- Lower viscosity when heated
- Higher radiopacity

# TotalFill® Bioceramic **Bonded Obturation**

Standard gutta percha can be used with BC Sealer, but for a true, gap-free seal, BC Points are recommended. BC Points are impregnated and coated with bioceramic particles to allow for bonding with BC Sealer. The benefit of using BC Sealer and BC Points is that three-dimensional bonded obturation can be achieved at room temperature. However, if a warm vertical technique is preferred it is recommended to use BC Sealer HiFlow with BC Points 150 Series along with BC Pellets at 150°C - 220°C.

# **BC Sealer setting/bonding reaction**

BC Sealer is a calcium silicate, calcium phosphate based sealer. The calcium silicate combines with water to form calcium hydroxide (high pH). The calcium hydroxide then combines with calcium phosphate to form hydroxyapatite.



## **HYDRATION REACTIONS (A,B)**

 $2[3CaO.SiO^2] + 6H^2O \rightarrow 3CaO. 2SiO^2.3H^2O + 3Ca(OH)^2$  $2[2CaO.SiO_2] + 4H_2O \rightarrow 3CaO.2SiO_2.3H_2O + Ca(OH)_2$ 

### PRECIPITATION REACTION

 $7Ca(OH)^2 + 3Ca(H^2PO^4)^2 \rightarrow Ca^{10}(PO^4)^6(OH)^2 + 12H^2O$ 

(C) HYDROXYAPATITE

# **Cold Bonded obturation**

- TotalFill BC Sealer
- TotalFill BC Points



TotalFill BC Points Individual Packs

√ Stiffer to drive sealer

Tip ID		Tip Size	.02 Taper	.04 Taper	.06 Taper
0	White	15	-	<b>~</b>	
<u> </u>	Yellow	20	-	<b>V</b>	<b>✓</b>
	Red	25	<b>✓</b>	<b>~</b>	<b>~</b>
	Blue	30	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Green	35	<b>✓</b>	<b>✓</b>	<b>✓</b>
•	Black	40	<b>✓</b>	<b>✓</b>	<b>✓</b>
0	White	45	<b>✓</b>	<b>✓</b>	<b>✓</b>
0	Yellow	50	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Red	55	<b>✓</b>	<b>✓</b>	-
	Blue	60	<b>✓</b>	<b>~</b>	-
	Green	70	-	<b>~</b>	=
•	Black	80	-	<b>✓</b>	-
	Black	80	-	<u> </u>	-

## Warm Bonded obturation

- TotalFill BC Sealer HiFlow
- TotalFill BC Points & TotalFill BC Pellets



TotalFill BC Points HiFlow Individual Packs

√ Melt at 150°C

Tip ID		ID	Tip Size	.04 Taper
	$\bigcirc$	White	15	<b>✓</b>
		Yellow	20	<b>✓</b>
		Red	25	<b>✓</b>
		Blue	30	<b>✓</b>
		Green	35	<b>✓</b>
		Black	40	✓
	$\circ$	White	45	<b>✓</b>
		Red	55	<b>✓</b>



TotalFill BC Pellets ✓ Melt at 150°C