

# TECHNICAL DATA SHEET

<b>Product:</b>	Alpha-Dent® Self Cure Composite	
<b>Product Description:</b>	Alpha-dent® Self Cure Composite Restorative Material contains 57% by volume of a blend of inorganic radio-opaque fillers with particle range from 0.01 to 74 microns. The organic matrix oligomer is based on Bis-GMA resin.	
<b>Indications for Use:</b>	Alpha-dent® Self Cure Composite Restorative Material is recommended for Class III and Class V restorations and for limited use in Class I restorations in pre-molars and selected Class IV restorations where esthetics is of primary importance.	
<b>Appearance:</b>	Thick homogeneous paste: White catalyst paste and light brown base paste.	
<b>Curing Mechanism:</b>	Self cured by mixing base and catalyst together.	
<b>Shelf-Life:</b>	36 months	
<b>Filler Type:</b>	Blend of inorganic fillers	
	% Filler by volume:	57
	Filler particle range, $\mu\text{m}$	0.01 - 74
	Average filler particle size, $\mu\text{m}$	37
<b>Main Composition (%w/w):</b>		
	Inorganic Fillers	75 – 85
	Bis-GMA	5 – 20
	Methacrylate Monomers	3 – 15
	Colorant	< 5
	Accelerator	< 5
	Initiator	< 1
	Inhibitor	< 1
<b>Physical /Mechanical Properties: (Typical Values)</b>		
	Working Time, minutes @ 23 °C	2.3
	Setting Time, minutes @ 37 °C	2.5
	Compressive Strength, MPa	210
	Diametral Tensile Strength, MPa	42
	Flexural Strength, MPa	100
	Water Sorption, $\mu\text{g}/\text{mm}^3$	20
	Water Solubility, $\mu\text{g}/\text{mm}^3$	1