

TECHNICAL DATA SHEET

Product:	Alpha-Dent® Self Cure Composite	
Product Description:	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.	
Indications for Use:	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.	
Appearance:	Thick homogeneous paste: White catalyst paste and light brown base paste.	
Curing Mechanism:	Self cured by mixing base and catalyst together.	
Shelf-Life:	36 months	
Filler Type:	Blend of inorganic fillers	
	% Filler by volume:	57
	Filler particle range, μm	0.01 - 74
	Average filler particle size, μm	37
Main Composition (%w/w):		
	Inorganic Fillers	75 – 85
	Bis-GMA	5 – 20
	Methacrylate Monomers	3 – 15
	Colorant	< 5
	Accelerator	< 5
	Initiator	< 1
	Inhibitor	< 1
Physical /Mechanical Properties: (Typical Values)		
	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