

TECHNICAL DATA SHEET

Product:	Alpha-Dent® Light Cure Hybrid Composite	
Product Description:	Alpha-dent® Light Cure Composite Restorative Material with a Bis-GMA polymeric matrix and a 56% by volume blend of inorganic radiopaque fillers with particle range from 0.02 to 4 microns.	
Indications for Use:	Alpha-dent® Light Cure Composite Restorative Material is contraindicated on patients with a history of severe allergic reaction to methacrylate resins.	
Appearance:	A thick homogeneous paste available in all Vita® Shades.	
Curing Mechanism:	Light cured by applying an external energy activated Dental Blue Light with minimum output 600 mW /cm ² and wavelength 400 – 500 nanometers.	
Shelf-Life:	30 months	
Filler Type:	Barium glass and Silica	
	Filler % by Volume:	56
	Filler Particle Range, μ:	0.02 - 4
	Average Filler Particle Size, μ:	2
Main Composition (%w/w):		
	Blend of radiopaque fillers	60 – 80
	Bis-GMA	10 – 20
	Comonomer diluents	5 - 15
	Photoinitiator	< 1
	Stabilizer	< 1
	Colorant	< 1
Physical /Mechanical Properties: (Typical Values)		
	Compressive Strength, MPa	225
	Diametral Strength, MPa	47
	Flexural Strength, MPa	95
	Water Absorption, μg / mm ³	20
	Water Solubility, μg / mm ³	1
	Depth of cure, mm/2	2.5
	Radiopacity, 1 mm disk	equivalent to 1 mm aluminum