

# TECHNICAL DATA SHEET

<b>Product:</b>	Alpha II® AP Light Cure Micro-Hybrid Composite
<b>Product Description:</b>	Alpha II® AP is a light cure resin-based micro-hybrid composite with Fluoride. Alpha II® AP is available in 13 Vita®* shades plus four opaquers and an incisal shade. The organic matrix oligomer is based on Bis-GMA resin. Alpha II® AP is a radio-opaque restorative material that allows for easy identification in radiographs.
<b>Indications for Use:</b>	Alpha II® AP is recommended for use in Class I and Class II restorations and is aesthetically accurate for use in Class III, VI, and V restorations.
<b>Appearance:</b>	A homogeneous paste available in thirteen Vita® shades plus four opaquers and an incisal shade.
<b>Curing Mechanism:</b>	Light cured by applying an external energy activated Dental Blue Light with minimum output of 600 mW/cm <sup>2</sup> and wavelength 400 to 500 nanometers.
<b>Shelf-Life:</b>	30 months
<b>Filler Type:</b>	Barium glass, Barium-alumino-boro-fluorosilicate glass and amorphous silica.
	Filler % by Volume 53
	Filler Particle Range (μ) 0.02 - 2
	Average Filler Particle Size (μ) 1
<b>Main Composition (%w/w):</b>	
	Filler 64 – 84
	Bis-GMA 6 – 18
	Comonomers 8 – 21
	Preservative < 1
	Colorant < 1
	UV light absorber < 1
	Photoinitiator < 1
<b>Physical /Mechanical Properties:</b>	
	Water Sorption, μg/mm <sup>3</sup> 20
	Water Solubility, μg/mm <sup>3</sup> 0.60
	Diametral Tensile Strength, MPa 45
	Compressive Strength, MPa 230
	Flexural Strength, MPa 110
	Radiopacity, 1 mm disk equivalent to 1 mm aluminum
	Depth of cure, mm/2:
	Light shades (A1, A2, A3, B1, B2, C1) 2.5
	Dark shades (A3.5, A4, B3, B4, C2, C3, D4, Opaquer) 2.3