

TECHNICAL DATA SHEET

- Product:** Alpha II[®] AP Light Cure Micro-Hybrid Composite
- Product Description:** Alpha II[®] AP is a light cure resin-based micro-hybrid composite with Fluoride. Alpha II[®] AP is available in 7 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.
- Indications for Use:** 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.
- Appearance:** A homogeneous paste available in seven Vita[®] shades plus four opaquers and an incisal shade.
- Curing Mechanism:** Light cured by applying an external energy activated Dental Blue Light with minimum output of 600 mW/cm² and wavelength 400 to 500 nanometers.
- Shelf-Life:** 30 months
- Filler Type:** 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

Main Composition (%w/w):

Filler	64 – 84
Bis-GMA	6 – 18
Comonomers	8 – 21
Preservative	< 1
Colorant	< 1
UV light absorber	< 1
Photoinitiator	< 1

Physical /Mechanical Properties:

Water Sorption, μg/mm ³	20
Water Solubility, μg/mm ³	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)	2.5
Dark shades (A3.5, Opaquer)	2.3