

# AT 1300 - PROTEK SERIES

NANO-CERAMIC COATING

TECHNICAL DATA SHEET

AT 1300 - ProTek Series offers unparalleled protection of electronic components from heat, moisture, and other contaminants. The AT 1300 series has been specifically formulated for use on electronics. All AT 1300 Series coatings are fluoropolymer free. The coatings are easy to apply and offer best in class moisture protection. The AT 1300 - ProTek Series have been specifically designed to quickly and efficiently conduct heat making them the perfect coating for systems requiring thermal energy to be transmitted away from vulnerable components. Available in clear and black.

Proudly manufactured in the USA.

## Technical Data

Color	Clear
Viscosity	12 sec. #2 Zahn
Percent of Solids (%) – AT - 1300	12
Percent of Solids (%) – AT - 1301	18
Percent of Solids (%) – AT - 1302	20
V.O.C	Exempt per CFR 51.1 / Regulation 8
RoHS	Compliant
REACH	Compliant
Halogens	None
Thermal Stability (cured)	1200°F (648.8°C)
Conical Bond (1/8" Mandrel) (ASTM D522-93a)	Passed
Cross Cut Adhesion (ASTM D3359)	5B
Coefficient of Friction (ASTM D2047)	0.03μ
Specific Gravity (ASTM D891-09)	0.889
Pencil Hardness (ASTM D3363)	8h
Odor (liquid)	Slight Solvent
Odor (cured)	None

## Drying and Coverage Rate

Average Applied Dry Film Thickness	2 to 10 microns
Estimated Coverage Rate (18% solids @ 3 microns) *Substrate profile will vary results	2,450 ft <sup>2</sup> (230 m <sup>2</sup> ) per gallon
Dry to Touch Time (@ 77°F / 25°C)	15 – 25 minutes (average)
Ambient Cure (Full Properties)	35-45 minutes (24 hours for best performance)

\*Higher solids formulations of the AT – 1300 Series may affect cure times

## Key Performance Properties

- Thermal management via thermal transfer.
- Electrically non-conductive.
- Highly hydrophobic.
- Extreme anti-corrosion.
- Excellent adhesion.
- Ultra thin film thickness (2 – 10 microns) Available in clear, semi-clear and black.
- One component coatings.
- Applied via spray, wipe or dipping.
- Quick drying with ambient air cure (accelerated heated curing possible).
- Single coat required for vast majority of applications.
- No odor or fumes when heated.
- Inert material once cured.
- Environmentally friendly – contains no fluorocarbons.
- RoHS, REACH and WEEE compliant.

## Common Applications

- PCBAs / electronic circuit boards
- Consumer Electronics
- Wearables
- Optics
- Micro-motors
- Connectors
- Sensors

## Supplemental Information

AT 1300 Series have the same basic application, hydrophobic and adhesion properties. Some formulations have higher solids content that result in higher dry film thickness and therefore maximizes water resistance and thermal properties. Contact your AlphaTek representative for further information.

ALPHATEK MATERIALS, LLC

2372 Morse Ave., Ste. 167, Irvine, CA 92614

contact@alphatekmaterials.com

All statements, technical information and recommendations contained in this document are based upon tests or experience that AlphaTek believes are reliable. Environmental conditions, storage practices and many other variables may impact the performance of this product in a given application. AlphaTek is not responsible for the use or application of this product. It is the responsibility of the end user to determine the suitability of this product for the end application. No warranty is written or implied regarding application and use of this product.