

## WBPS

### Aquacoat Plus – Aqueous Conformal Coating (Sprayable)

WBPS is a water based conformal coating specifically formulated for the protection of electronic circuitry. Designed for application via spraying, WBPS offers the ideal combination of a high specification coating with very low VOC emissions.

- Low viscosity version; ready to use for spraying application
- Environmentally friendly coating due to very low VOC emissions; reduced production costs
- Eliminates the use of hazardous solvents and is NMP free; significantly reduces operator risks
- Contains a UV trace; ensures quality of coating by visual inspection

#### Approvals

**RoHS-2 Compliant (2011/65/EU):**  
**MIL Approval (MIL-1-46058C):**  
**IPC-CC-830:**

**Yes**  
**Meets approval**  
**Meets approval**

#### Liquid Properties

Appearance:	Milky White
Density @ 20°C (g/ml):	1.03
VOC Content:	<10%
Flash Point:	>100°C
Solids content:	35%
Viscosity @ 20°C (mPa s):	60-100
Touch Dry:	25-35 minutes
Recommended Drying Time:	24 hours @ 20°C, or 2 hours 20°C followed by 2 hours @ 60°C
Coverage @ 25µm:	*Optimum properties achieved after 7 days 14 m <sup>2</sup>

#### Dry Film Coating

Colour:	Clear transparent
Operating Temperature Range:	-60°C to +125°C
Flammability:	Meets UL94-V1
Thermal cycling (MIL-1-46058C):	Pass
Coefficient of Expansion:	125 ppm
Dielectric Strength:	50 kV/mm
Dielectric Constant:	2.6
Surface Insulation Resistance:	5 x 10 <sup>11</sup> Ω
Dissipation Factor @ 1MHz, 25°C:	0.03
Moisture Resistance (MIL-1-46058C):	Pass

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

Ashby Park, Coalfield Way,  
 Ashby de la Zouch,  
 Leicestershire LE65 1JR

T +44 (0)1530 419 600

F +44 (0)1530 416 640

BS EN ISO 9001:2008  
 Certificate No. FM 32082

<b><u>Description</u></b>	<b><u>Packaging</u></b>	<b><u>Order Code</u></b>	<b><u>Shelf Life</u></b>
<u>Water Based Conformal Coating (Sprayable)</u>	5 Litre Bulk	WBP05LS	12 Months
<u>Water Based Conformal Coating</u>	5 Litre Bulk	WBP05L	12 Months
<u>Deionised Water Thinners</u>	5 Litre	DEI05L	36 Months
<u>Conformal Coating Removal Gel</u>	1 Litre Bulk	CCRG01L	36 Months

### **Directions for Use**

WBPS is designed for spraying applications. For dipping applications please see WBP. The thickness of the coating depends on the method of application (typically 25-75 microns). Temperatures of less than 16°C or relative humidity in excess of 75% are unsuitable for the application of WBPS.

Substrates should be thoroughly cleaned before coating. This is required to ensure that satisfactory adhesion to the substrate is achieved. Also, all flux residues must be removed as they may become corrosive if left on the PCB. Electrolube manufacture a range of cleaning products using both hydrocarbon solvent and aqueous technology. Electrolube cleaning products produce results within Military specification.

### **Spraying – Bulk**

WBPS has been specifically formulated for use in selective film coating equipment and does not require additional thinning. For advice on equipment set up please contact Electrolube.

WBPS is also suitable for use in manual spray guns. The selected nozzle should enable a suitable even spray to be applied in addition to suiting the prevailing viscosity. The normal spray gun pressure required is 275 to 413kPa (40 – 60 lbs/sq.inch). After spraying, the boards should be placed in an air-circulating drying cabinet and left to dry.

### **Inspection**

WBPS contains a UV trace, which allows inspection of the PCB after coating to ensure complete and even coverage. The stronger the reflected UV light, the thicker the coating layer is. UV light in the region of 375nm should be used for inspection.

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