

Technical Data Sheet

AIC-Black 9003

Phosphate Series self-dispersed water-based inkjet pigment dispersion. Black / C.I. PBk 7.

Typical properties

Model	AIC-Black 9003
Colour Index	PBk 7
Surface chemistry	Phosphate functional groups
Particle size D50	≤140 nm
Viscosity	≤3 mPa·s
Electrical conductivity	≤2,000 μS/cm
Surface tension	40-80 mN/m
pH	7.5-9.5
Accelerated aging	60 °C for 7 days
Surface tension change after aging	≤10%
Viscosity change after aging	≤10%
Conductivity change after aging	≤10%

Selected QC method references

Viscosity: rotational viscometry, ASTM D7867-13(2025)e1. Static surface tension: Wilhelmy plate, ASTM D1331-20(2024), Method C. pH: glass-membrane sensor, ISO 19396-1:2025. These methods are selected for future QC alignment; the typical values above have not been retrospectively certified as measured under these methods.

Application guidance

DTG, roll-to-roll textile, desktop pigment ink, corrugated digital printing, latex ink. Confirm final ink and printhead suitability in the finished formulation.

Data interpretation

Values are product-level technical targets, not batch-specific results. Aging changes compare initial and day-7 values as |day 7 - initial| / initial × 100%. Particle-size instrument/model, distribution basis, sample preparation, measurement temperature, aging container and post-aging equilibration should be confirmed for direct comparison. Request the batch COA for qualification.

AIC TDS | September 2026 | Revision 3