

WATER BASED

UNIVERSAL BINDER

Specification Sheet

Core Properties

Debinding Temperature 400-500°C

Viscosity 1.39 cP (25 oC, 129 s⁻¹)

Compatible Materials
 Stainless Steel 316L
 17-4PH Stainless Steel
 Pure Aluminium
 AlSi10Mg
 Pure Copper

Solvent Base IPA / Proprietary

Green Part Strength 3.2 MPa

Green Part Density 60%

Carbon Residue after sintering 0.022%

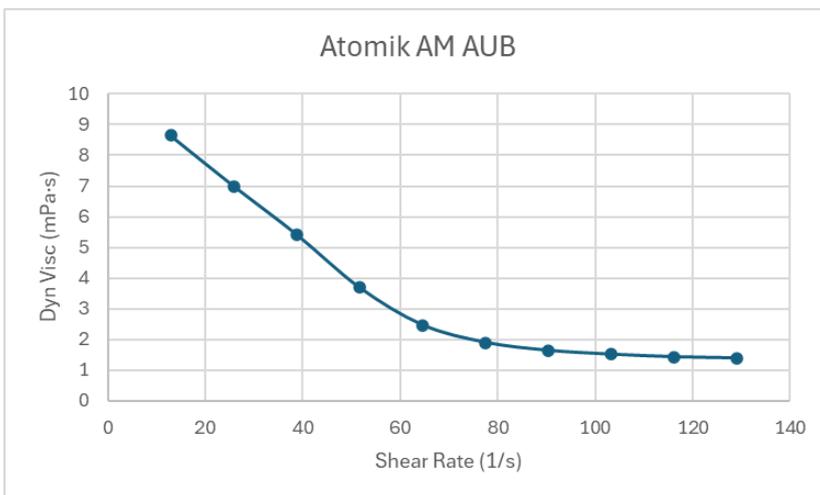
The Atomik Universal Binder is a **versatile**, material-agnostic formulation designed for compatibility across a wide range of powders and industrial binder jetting applications. Formulated with **green principles** in mind, it is safe to handle, non-toxic, and cost-effective. Its **tunable chemistry** allows adaptation to multiple BJP platforms, making it suitable for a **variety of machines and processes**.

This bespoke formulation **balances green part strength, post-processing carbon content, impurity control, and cost-efficiency**, offering manufacturers a dependable solution without compromise. With **fine-tuned rheological properties**, the Atomik Universal Binder is compatible with all commercially available Thermal printheads, delivering **excellent printability and consistent performance**.

Parts printed with **Atomik Universal Binder** demonstrate strong green strength.

Build failure rates are below 25%, exceeding the performance of typical binders currently on the market

Full Properties



Post-processing is made **easier** with The Universal Binder - the characteristic burnout profile of the binder allows for **reliable** sintering every time with all industry standard metal powders, leaving **minimal carbon residue**, making it suitable for the manufacturing of high grade components.

- Faster turnaround with no thermal or UV cure required.
- Will not damage or degrade print heads with extended use.
- Lower carbon content than competitors, which is important for sectors such as Aerospace.

Curing Regime Not required

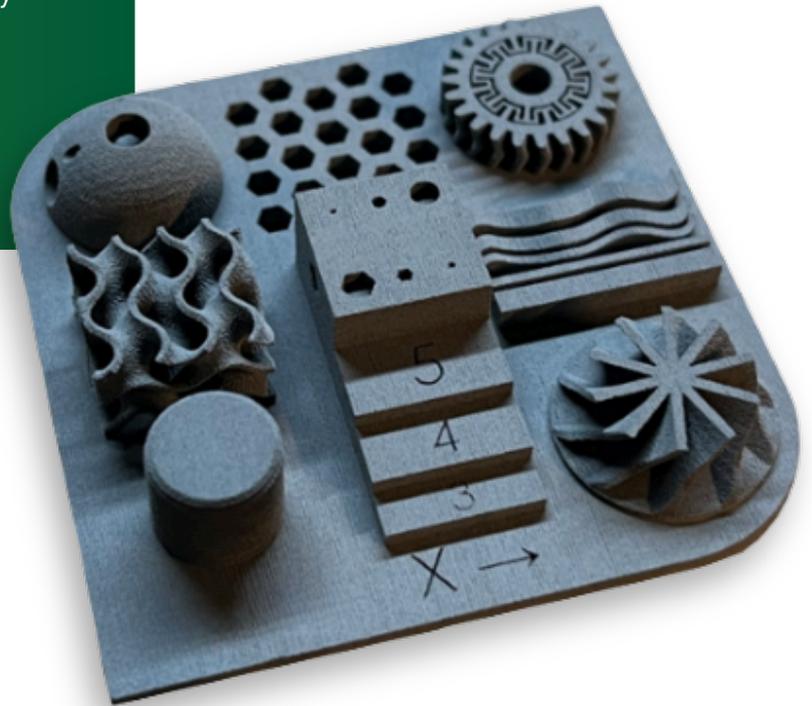
Surface Tension 46.2 mNm

Density 1.021 g/ml

Test Part: Universal Binder Validation

Challenge piece printed in 17-4PH using Atomik AM's solvent based Universal Binder. Printed by an internationally recognised binder jet printer manufacturing company using an Innovent+ printer .

Part Dimensions: 45mm x 45mm x 10mm



Atomik

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About Atomik AM

We develop advanced solutions for the manufacturing industry, enabling smarter, more sustainable production processes. Our innovative technologies help customers improve performance, reduce waste and unlock new possibilities

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