

Fluid Optimisation



XaarDOT™ fluid optimisation is a valuable service which helps Xaar's fluid partners to design and develop a fluid range for specific applications and services. It consists of the following features:

XaarDOT™ CR

- XaarDOT™ CR is a new analytical technique developed by Xaar to determine the complex rheological characteristics of a fluid
- This technique identifies potential reasons for poor fluid performance and provides reformulation guidance. This helps to reduce the time and cost required to develop fluids and improves time to market for printer manufacturers
- XaarDOT™ CR delivers improved print performance and printer operation.

Materials Compatibility/Lifetime Testing

- Xaar's materials compatibility test evaluates the effect of the fluid on the printhead construction materials and also of the printhead materials on the fluid
- Lifetime testing is a continuous printing test which establishes the robustness of your fluid with the printhead/waveform combination
- The combination of materials and lifetime testing validates the long-term compatibility of the fluid with the Xaar printhead.

Waveform Optimisation

- A waveform and temperature compensation algorithm* is developed for the fluid/printhead combination. This maximises performance for a given application. This ensures greater drop placement accuracy, optimised operating voltage, print reliability and increased throughput.

Reliability Testing

- The reliability test simulates the performance of a fluid and printhead using the optimised waveform/temperature compensation algorithm*. This technique verifies the consistency and reliability of the fluid over a period of one year of heavy usage.

Warranty

- Once successfully validated and approved the XaarDOT™ optimised fluid is warranted against long term damage to the printhead
- This warranty differentiates XaarDOT™ optimised fluids from other non-warranted fluids. It provides our customers with the knowledge that the XaarDOT™ fluid has been validated, approved and optimised to give unrivalled print performance and trouble free operation.

* Where required



Benefits to Fluid Developers

- Printhead warranty
- Reduced costs of ink development
- Product differentiation

Benefits to Printers

- Unrivalled print performance
- Trouble-free operation
- Shorter time to market



XAAR®

XAAR INNOVATIVE
TECHNOLOGY THROUGH
AND THROUGH

Fluid Optimisation

Fluid Agreement

The first step in validating and approving a fluid starts with signing a fluid partnership agreement with Xaar.

Materials Compatibility Pre-screen

The materials compatibility pre-screen test checks the compatibility of your fluid with the printhead component materials.

XaarDOT™ CR Pre-screen

This validates how the fluid would perform in the printhead and identifies if, or how, the fluid should be improved.



Issue Report

This report guides you through the actions required to improve the performance of your fluid in a Xaar printhead, according to your application requirements.

Fluid Reformulation

You are now in a position to reformulate your fluid based on the Xaar recommendations for optimum performance in the Xaar printhead.

XaarDOT™ CR Retest

You re-submit your reformulated fluid to validate its improved performance in the Xaar printhead.

Materials Compatibility

This validates the effect of your fluid on the printhead materials and also of the printhead materials on the fluid.

Waveform Optimisation

A waveform and temperature compensation algorithm* is developed for the fluid/printhead combination to optimise performance.

Reliability Testing

The print performance of your fluid and printhead is evaluated over time using the optimised waveform/temperature compensation algorithm*.

Lifetime Testing

This is a continuous jetting test to establish the robustness of the fluid/printhead/waveform combination.

Ink Certification and Approval

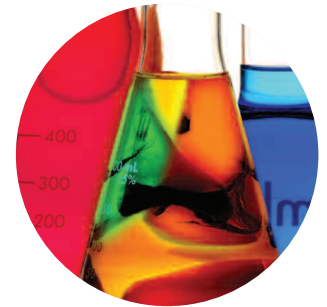
Once your fluid is approved, it is certified and warranted to work on a specific Xaar printhead, ensuring long printhead life.

* Where required

For further details please contact our Ink Business Manager

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XaarDOT™ fluid optimisation validates and approves fluids for specific applications

 **XAARDOT™**
DROP OPTIMISATION TECHNOLOGY