Pro-Jet™ Red APD1000

Aqueous pigment dispersions for high performance ink-jet inks

Using the unique capabilities offered by FUJIFILM Imaging Colorants' proprietary Reactive Dispersant (RxD™) technology, Pro-Jet™ Red APD1000 provides outstanding pigment dispersion performance for the aqueous ink formulator, combining:

- Excellent optical density across a range of media
- Outstanding print durability – reducing the need for additional binders
- Superior stability in aqueous based ink formulations
- Broad printhead compatibility

Initially designed for exceptional performance on plain and pre-coated papers, Pro-Jet™ Red APD1000's attributes mean it can also be used in many non-paper based applications.

Dispersion Attributes

Pigment	C.I. Pigment Red 254
Appearance	Red Liquid
Pigment Solids Content / wt%	16.0%
pH	8.8
Viscosity @25°C / mPa.s	4.5
Particle Size (Z_{ave}) / nm	125
Storage Stability (ambient conditions)	stable
Conductivity / $mScm^{-1}$@25°C	3.0

Superior on-substrate durability and print quality with ink formulation flexibility

Pro-Jet™ Red APD1000's proprietary dispersion technology provides excellent compatibility with ink components and acceptance of higher concentrations of co-solvents. The polymer stabilisation technology provides greater flexibility for aqueous ink formulation and excellent print quality and durability (highlighter, scratch and rub resistance).

Excellent colloidal stability has been shown in inks containing a wide variety of ink solvents including:

- 2-butoxyethanol
- 1,2-hexanediol
- Diethylene glycol
- 2-propanol
- Ethylhydroxypropanediol
- 1,4-butanediol
- Ethylene glycol
- Polyethylene glycol
- Butanone
- Di- and Tri-ethyleneglycol monobutylether

Print Quality and Durability

Substrate[1]	ROD	Chroma	Hue
Canon GF500	1.19	78	33
HP All in One	1.31	81	33
Xerox 4200	1.14	74	29
Fuji EGEB	1.99	97	39

[1] results shown at 5.5% strength in resin-free ink formulation

Print Durability	Pass / Fail[2]
Rub fastness – Wet	Pass
Rub fastness – Dry	Pass
Highlighter fastness	Pass

[2] internal test protocol, resin-free ink formulations

Reactive Dispersant Technology

FUJIFILM Imaging Colorants' Reactive Dispersant technology involves the covalent linking of unique polymeric dispersants when on the pigment surface, entrapping the pigment in a robust layer of dispersant. As the dispersant cross linking involves a chemical reaction, its displacement from the pigment surface by ink components is eliminated, thereby providing superior dispersion stability.

Through combining this approach with application specific polymeric dispersant design, FFIC has been able to develop highly robust pigment dispersions offering excellent print durability and high optical density on many substrates, whilst also enabling greater formulation scope to allow the design of sustainable and highly reliable ink-jet inks.

For further information on the Pro-Jet™ APD range please contact:

EUROPE
FUJIFILM Imaging Colorants Ltd.
Earls Road
Grangemouth
Stirlingshire
FK3 8XG
Scotland
Tel: +44 (0) 1324 468468
Fax: +44 (0) 1324 483537

USA
FUJIFILM Imaging Colorants Inc.
233 Cherry Lane
New Castle
DE 19720
USA

Tel: +1 800 552 1609
Fax: +1 302 477 8025

JAPAN
Fine Chemical Division
FUJIFILM Global Graphic System Co., Ltd.
2-26-30 Nishiazabu, Minato-ku
Tokyo 106-0031, JAPAN

Tel: +81-3-6419-0523
Fax: +81-3-6419-9840

Email: **projet@fujifilmic.com**

www.fujifilmimagingcolorants.com

innovatingenablingcoloring