

Technical Data Sheet

Dokumental® “New Blue” Ball Pen Inks

Ball Pen Inks

General Information

Dokumental “New Blue” Ball Pen Inks are appealing due to their bright, brilliant and vivid colors. The two new shades, ‘New Blue’ and ‘Deep Blue’, are available in the four most popular viscosity levels and – as being REACH-compliant - are formulated without SV8.

Suitable Surfaces

All kind of papers

Standard Viscosity: These inks follow the tradition of our famous 600 B.

Type	Colour	Lightfastness (ISO 12757)	TF	Viscosity at 20°C mPa s ± 1,000	Surface tension mN/m	pH-Value ± 0.5
Dokumental® 608 B	New Blue	Part I	yes	18,500	> 35	7.5
Dokumental® 609 B	Deep Blue	Part I	yes	18,500	> 35	7.5

Medium Viscosity: These new inks exhibit the same good writing performance as our well-known BP 134.

Type	Colour	Lightfastness (ISO 12757)	TF	Viscosity at 20°C mPa s ± 500	Surface tension mN/m	pH-Value ± 0.5
Docufluidal® BP 138	New Blue	Part I	yes	8,500	> 35	7.5
Docufluidal® BP 139	Deep Blue	Part I	yes	8,500	> 35	7.5

Ultra Low Viscosity: This viscosity level aims at the smooth writing technology. We offer the “NEW BLUE” Inks in 3 different ink series.

Our **Docufluidal® EF 1xx** series perfectly balances leaking and gooping

Type	Colour	Lightfastness (ISO 12757)	TF (with ink follower)	Viscosity at 20°C mPa s ± 200	Surface tension mN/m	pH-Value ± 0.5
Docufluidal® EF 108	New Blue	Part I	yes	2,100	> 35	7.5
Docufluidal® EF 109	Deep Blue	Part I	yes	2,100	> 35	7.5

The **Docufluidal® SGP 1xx** series shows an excellent low level of static leaking

Type	Colour	Lightfastness (ISO 12757)	TF (with ink follower)	Viscosity at 20°C mPa s ± 200	Surface tension mN/m	pH-Value ± 0.5
Docufluidal® SGP 108	New Blue	Part I	yes	2,100	> 35	7.5
Docufluidal® SGP 109	Deep Blue	Part I	yes	2,100	> 35	7.5

The **Docufluidal® SF 1xx** series offers a super smooth gliding experience due to its outstanding low viscosity.

Type	Colour	Lightfastness (ISO 12757)	TF (with ink follower)	Viscosity at 20°C mPa s ± 200	Surface tension mN/m	pH-Value ± 0.5
Docufluidal® SF 108	New Blue	Part I	yes	1,250	> 35	7.5
Docufluidal® SF 109	Deep Blue	Part I	yes	1,250	> 35	7.5

ISO 12757: Ball point pens and refills - Part I: General use, Part II: Documentary use, TF: Transparent Flux (clear drain in suitable refills)

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Technical Advice

General remarks:

Dokumental has tested the performance, long term stability and shelf life of the inks in the laboratory under typical terms of use in a limited number of writing systems. As there is a large variety of writing system components available on the market, Dokumental can NOT give a general guarantee for the inks in all writing systems. Therefore, it is mandatory to approve the compatibility of the inks and the components as well as the writing performance, long term stability and the shelf life of the inks in the customer's components. Important and decisive parameters are:

1. Climatic conditions: Temperature and Humidity

Especially exposure to high temperatures and high humidity may accelerate the aging of the ink in original ink drums as well as in the writing system. This may lead to reduced shelf life of the products. Therefore, long term stability and shelf life of the writing system must be tested thoroughly under those climatic conditions, which are expected during the storage time and the practical use of the writing system.

2. All materials, which get into contact (short term or long term) with the inks during processing and manufacturing of the writing instruments, like hoses, pipes, pumps, funnels, storage tanks, cleaning liquids etc. All such contact materials may not release any contaminations to the inks. Contamination of the inks may lead to undesirable effects like performance loss and/or reduced shelf life.

3. All materials, which get into contact (short term and long term) with the inks in the writing system like tips, tubes, sealing waxes, ink follower, etc. Long term oven test at elevated temperature (recommended is 40 to 50 °C) must be carried out to prove long term compatibility of all components and materials.

4. Narrow tip and tube dimensions like tips ≤ 0.5 mm and/or tubes with inner diameter $\leq 1,7$ mm may lead to reduced shelf life of the writing system or other undesirable effects due to accelerated ink drying especially when stored at temperatures above 30 °C.

Suitable Components:

All ball pen inks are suitable for plastic and metal refills.

Tips:

608 B/ 609 B:

We recommend to use same tips as for 600 B and/or 600 B Plus respectively. Typically ILD for these inks is in the range of 12 to 20 mg/100m, but it is not limited to that. For best advice we recommend to contact tip manufacturers.

BP 138/ BP 139:

We recommend to use same tips as for BP 134 and/or BP 134 Plus respectively. Typically ILD for these inks is in the range of 15 to 25 mg/100m, but it is not limited to that. For best advice we recommend to contact tip manufacturers.

ULV-Inks (EF 108/EF 109, SGP 108/SGP 109, SF 108/SF109):

We recommend to use same tips as for EF 105/EF 106, SGP 105/106, SF 105/106. Typically ILD for these inks is 33 to 38 mg/100m for 0.7 mm tips and 38 to 45 mg/100 m for 1.0 mm tips, but it is not limited to that. For best advice we recommend to contact tip manufacturers.

The combination of our ULV Ball Pen Inks with not suitable tips will lead to undesirable results (e.g. static leakage, gooping, etc). Specially adjusted tips for ULV ball pen inks are essential to obtain the maximum writing performance. For capillary refills, the use of ink follower Dokumental® IF 4312 colorless will increase the shelf life and will improve clear drain property. For jumbo refills, the use of ink follower Dokumental® QIF 3/11 white or QIF 3/12 white is mandatory to prevent back-leakage. For further information about our ink followers see the Dokumental® Ink Follower technical data sheets.

It is mandatory to approve the compatibility of the ink and the components as well as the performance of the writing system

Storage, Handling & Transportation

Store our product frost protected and avoid direct sunlight. The recommended storage temperature is between 10°C and 30°C. Storage temperatures of above 30°C for several days bear the risk of a reduced shelf life of the ink.

After usage the drums have to be closed again tightly.

Horizontal storage of the refills is recommended in order to get the maximum shelf life.

The shelf life of the inks in original sealed containers is 4 years, if above mentioned storage conditions are met.

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Applicable Standards & Regulations on Request

Unless expressly agreed, no warranty is given that all standards & regulations relevant to the Customer's intended use have been and will be complied with. To the extent that compliance with certain standards & regulations is warranted, this warranty shall only apply at the time the underlying contract is entered into. There is no guarantee that the products will continue to comply with the standards & regulations in the event of future changes. Dokumental also assumes no obligation to inform the Customer of any changes to such standards & regulations that may be relevant to the Customer.

Packaging

20kg plastic canister
200kg plastic drum
1,000kg IBC

Produced by

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