

Technical Data Sheet

Docufluidal® SGP 1xx series Ball Pen Inks

Ultra Low Viscosity Ball Pen Inks with Minimized Static Leaking

General Information

Our DOCUFLUIDAL® SGP series inks combine smoothest writing with an excellent low level of static leaking. They generate an intense, constant and effortless writing performance if used in combination with specially adjusted tips.

Suitable Surfaces

All kind of papers

Applicable Standards & Regulations on Request

Physical Data

Type	Colour	Lightfastness (ISO 12757)	TF	Viscosity at 20°C mPa s ± 200	Surface tension mN/m	pH-Value
Docufluidal® SGP 100 ¹⁾	violet blue	Part I	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 101 ¹⁾	dark blue	Part I	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 102 ¹⁾	violet blue	Part II	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 110	black	Part II	no	2,100	> 36	5.5 - 7.5
Docufluidal® SGP 111	black	Part II	no	2,100	> 36	5.5 - 7.5
Docufluidal® SGP 120	red	Part I	no	2,100	> 35	7.5 - 8.5
Docufluidal® SGP 121	scarlet red	Part I	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 122	ruby red	Part I	no	2,100	> 35	4.0 - 6.0
Docufluidal® SGP 130	green	Part II	no	2,100	> 33	4.3 - 6.3

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

Technical Advice

Suitable Components:

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

Important: The combination of Docufluidal® SGP with not suitable tips will lead to undesirable results. So called OBG tips are essential to obtain the optimum writing performance.

To achieve a minimum level of static leaking it may be necessary to specially adjust the tips for these inks.

For capillary refills, the use of ink follower Dokumental® IF 4312 colourless will increase the shelf life and will improve clear drain property. Clear drain properties also depend on the refill material. For further information about our ink followers see the Dokumental® IF 43xx technical data sheet

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.

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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.

Storage, Handling & Transportation

Before use of our product the filling station has to be maintained and cleaned carefully. The inks are sensitive to any kind of contamination. Cross-contamination of the inks may lead to a colour mismatch or will even lead to a defective refill or shorter shelf life.

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 2 years.

Packaging

20kg plastic canister

200kg plastic drum

1,000kg IBC

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