

Technical Data Sheet

Docufluidal® SGP 3xx Ball Pen Inks

Ultra Low Viscosity Ball Pen Inks In Special Colours

General Information

The DOCUFLUIDAL® SGP 3xx inks combine the smooth, gel-like writing feeling of our DOCUFLUIDAL® SGP 1xx with a variety of fancy colours. Without any compromises on other writing features the Docufluidal® SGP 3xx series inks generate an intense, constant and almost „sliding“ 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 300	night blue	Part II	no	2,100	> 35	5.5 - 7.0
Docufluidal® SGP 301	light blue	Part II	no	2,100	> 35	4.0 - 6.0
Docufluidal® SGP 320	burgundy	Part I	no	2,100	> 35	5.3 - 6.3
Docufluidal® SGP 331	yellow green	part I	no	2,100	> 35	5.5 - 7.0
Docufluidal® SGP 340	pink	Part I	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 341 ¹⁾	lilac	Part I	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 342 ¹⁾	red violet	Part I	no	2,100	> 35	4.3 - 6.3
Docufluidal® SGP 350	red brown	Part II	no	2,100	> 35	5.5 - 7.5
Docufluidal® SGP 361	gold	Part I	no	2,100	> 35	5.5 - 7.0
Docufluidal® SGP 362	orange	Part I	no	2,100	> 35	5.5 - 7.0
Docufluidal® SGP 380	turquoise	Part II	no	2,100	> 35	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), 1) contains Solvent Violet 8, will be available until Q4/2024, replacement in development

Technical Advice

Suitable Components:

All ball pen inks are suitable for plastic and metal refills. Brass and BNP tips may coause colour change in Docufluidal® SGP 331 and SGP 362. We recommend NS or stainless steel tips.

Important: The combination of Docufluidal® SGP 3xx 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 sys-

tems. 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.

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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.

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 2 years.

Packaging

20kg plastic canister

200kg plastic drum

1,000kg IBC

Produced by

DOKUMENTAL GmbH & Co KG

Wöllnerstraße 26

D-67065 Ludwigshafen

Phone: +49(0)621/37702-321

Fax: +49(0)621/37702-391

Mail: info@dokumental.de

www.dokumental.de