

Duratort PG (DT2241)

Product Family: **SunStrato**

Gravure Inks for Laminates

1. Description

Ink series Duratort PG is designed for gravure printing of a several substrates as PET, OPA or OPP -Films.

2. Product Features and Suitability

Laminates with Duratort PG provide good bond strength, normally in the range above 2.5 N/15 mm. The quality of the laminates depends on the proper choice of film and adhesive. The inks are suitable for lamination with solvent-based and solvent-free adhesives.

Adhesion

Good initial adhesion is given on PET-film, PVdC-coated PET-film and PA-film.

For printing on PET-, PA-, and OPP-film we recommend inline corona treatment. The treatment improves the adhesion and supports the removal of humidity from the surface of PA-films.

The initial adhesion on OPP-films is poor. The bond strength of the laminates is good despite this lack of adhesion.

Resistance to hot processing

Duratort PG inks are suitable for laminates that are processed by pasteurization and sterilization up to 131 °C if the adhesive is suitable for this application, too.

Pigments

For hot processed laminates and microwave packages basic inks with subsequent listed pigments are suitable:

PWh 6, PY 17, PY 13, PY 83, PO16, PR 242, PR 146, PR 122, PV 23, PV 32, PV 19, PB 15:4, PG 7, PBk 7

We do not recommend Duratort PG inks containing metal pigments for pasteurization or retort

3. Substrates

Substrate	Remark	Second Web
OPP-film, coextruded *	≥ 38 mN/m	LDPE-film, OPP-film
OPP-film, acrylic coated		LDPE-film, OPP-film
PET-film, chemically treated		LDPE-film
PET-film, corona treated *	≥ 50 mN/m	LDPE-film
PET-film, PVdC-coated		LDPE-film
PET-film, coextruded *		LDPE-film
PA-film *	≥ 42 mN/m	LDPE-film

* inline corona treatment recommended

working for you.



4. Printing Conditions

4.1 Cylinders/Plates

The product/products is/are suitable for all types of gravure cylinders.

4.2 Reducing of Color Strength

If significant reducing of color strength is necessary, we recommend the use of extender. Adding only solvent has a detrimental effect on fastness and resistance against mechanical impact.

4.3 Printing Viscosities

The product/products should be stirred thoroughly and homogeneous before reducing with solvent. The optimum printing viscosity depends on press and running conditions. Good results have been achieved at the following viscosities:

- Rotogravure : 13 – 16 sec./DIN 53211* cup 4 mm corr. 28 – 34 sec./DIN 53211* cup 3 mm

* = The standard DIN 53211 has been replaced since several years with ISO 2431. This new standard has not been introduced completely in the German printing industry so far.

4.4 Reducing Solvents

- Diluent Ethanol or mixtures of Ethanol and Ethyl acetate
- Retarder Ethoxy propanol

4.5 Wash up Solvents

Ethanol/Ethyl acetate blends are more effective than Ethanol only.

5. General Handling

5.1 Storage

Warehouses should be approved and equipped appropriately. For more specific advice refer to the Material Safety Data Sheet (MSDS).

A storage stability of 12 months is guaranteed for unopened containers with intact seals when stored correctly (Temperature range between 10 and 25 °C).

5.2 Waste Disposal

Care should be exercised in the disposal of product waste. This should be carried out in accordance with good industrial practice, observing all the appropriate regulations and guidelines. For more specific handling advice refer to the Material Safety Data Sheet (MSDS).

6. End-use Safety

All Sun Chemical products are formulated to the latest CEPE/EuPIA guidelines. This excludes the use of carcinogenic, mutagenic and toxic for reproduction (CMR 1 and 2) or labeled (T) according to the Dangerous Substances Directive 67/548/EEC, substances classified as very toxic (T+) or toxic (T) and pigments based on compounds of Sb, As, Cd, Cr (VI), Pb, Hg, Se. The use of certain dyes, solvents, plasticizers and miscellaneous materials are also excluded. A copy of the document is available on request.

All Sun Chemical products are designed with end-use safety built-in. Combination of Sun Chemical products

SunChemical®

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Our products are intended for sale to professional users. The information herein is general information designed to assist customers whether our products are suitable for their applications. All recommendations are made without guarantee, since the application and conditions of use are beyond our control. We recommend that customers satisfy themselves that each product meets their requirements in all respects before commencing a print run. There is no implied warranty of merchantability or fitness for purpose of the product or products described herein. In no event shall Sun Chemical be liable for damages of any nature arising out of the use or reliance upon this information. Modifications of the product for reasons of improvements might be made without further notice.

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with products from other manufacturers may affect the suitability of the Sun Chemical product for specific end uses and/or applications. It is advised that in such circumstances the user undertakes a detailed risk assessment to ensure that safety is not compromised.

Acceptable technical performance of Sun Chemical inks is dependent on:

- Control of product application weight (inks coatings and adhesives)
- Adequate drying on press (to ensure that the print is dry before conversion)
- Appropriate packaging design and structure
- Control of any migratable substances within the finished packaging structure
- Suitable adhesive used in accordance with supplier recommendations

The choice and control of substrate, design (including coverage and coat weight), process conditions (e.g. to ensure proper drying) and any materials from other suppliers are printer or converter technical requirements. Sun Chemical's technical team can provide assistance in the form of suggestions or direct support for our products.

Food Packaging: It is the ultimate responsibility of the food packer to ensure packaged food is safe. With regard to potential migration of substances in to the foodstuff from the printed packaging, it is the responsibility of the converter and food packer to ensure that migration does not exceed any permitted regulatory limitations.

To fulfill its responsibility within the supply chain, and following the signing of a legally binding mutual non-disclosure agreement, Sun Chemical will provide details to the customer of any potential migratable components present in its products through the preparation and communication of a 'Statement of Composition'

7. Disclaimers

This list of applications, substrates and processes provided in this document is not exhaustive. Please contact your local Sun Chemical representative for full technical evaluation of your application or process.

The performance of the product and its suitability for the customers' purpose depend on the particular conditions of use and materials being printed. Therefore, any statement provided in this document should not be construed as providing a guarantee of performance in a specific application area. Sun Chemical always recommends that customers carry out a full evaluation of performance and safety-in-use prior to using our products in commercial applications.

These products are only suitable for use on the non-food-contact side of food packaging provided that they are applied under the relevant Good Manufacturing Practices (GMP) and according to the recommendations of this Technical Data Sheet.

The printers, converters and the packer/filler have the legal responsibility to insure that the finished article is fit for the intended purpose (s) and that the ink and coating components do not migrate into the food at levels that exceed legal and industry requirements.

8. Technical Assistance/Contacts

For further information, please contact your local Sun Chemical team or visit the Technical Help Desk at website: <http://www.sunchemicalhelpdesk.com>

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