

Series 751

2C Pad Printing Ink for Glass, Metals and Duroplasts

Glossy and highly resistant pad printing ink Series 751 for printing on glass, various metals and duroplasts. Series 751 does neither contain PAH nor halogens. For system reasons some individual color shades have halogen containing pigments. Se-

ries 751 is free of cyclohexanone. Typical applications are glass decoration, advertising material and automotive interiors.

Application

- › Glass decoration
- › Advertising material
- › Industrial applications

Substrates

Substrate	Rating	Hints
Duroplasts	★★★★★	
Glass / Ceramics	★★★★★	
Rigid PVC	★★★★★	
Polyamide (PA)	★★★★★	
Polyethylene, pre-treated (PE)	★★★★★	
Polyoxymethylene (POM)	★★★★★	Post-treatment (flame) and hardener Series 700-HDI required
Polypropylene, pre-treated (PP)	★★★★★	
Metal	★★★★★	
ABS, SAN, mixed polymers	★★★★	
Lacquered surfaces / powder coatings	★★★★	
Polycarbonate (PC)	★★★★	
Polyester, non-treated	★★★★	
Acrylic glass (PMMA molded)	★★★	

Legend ★★★★★ Very well suited ★ Detailed pre-tests necessary

Properties / Characteristics

Feature	Rating	Hints
Alcohol- and gasoline resistance	★★★★★	
Flexibility	★★★★★	
Gloss	★★★★★	High-glossy
Resistance to hand sweat	★★★★★	
Light fastness	★★★	
Abrasion resistance	★★★★★	
Pigmentation	★★★★★	
Temperature resistance	★★★★★	
Drying	★★★	
Water resistance	★★★★	Improvement by forced drying: 140 °C / 20 minutes
Weather resistance	★	

Legend ★★★★★ Very good product properties n/a No information available
 ★ Product properties not available

Product Range

MS Basic Colors

Article no.	Color	HP	HF	PF	HD	Article no.	Color	HP	HF	PF	HD
751-1005	MS light yellow	•	•	•		751-4005	MS violet	•		•	
751-1005/HD	MS light yellow	•	•	•	•	751-5005	MS blue	•	•	•	
751-1105	MS medium yellow	•	•	•		751-5005/HD	MS blue	•		•	•
751-1205	MS dark yellow	•		•		751-6005	MS green	•		•	
751-2005	MS orange	•		•		751-6005/HD	MS green	•		•	•
751-3005	MS red	•	•	•		751-6015	MS green	•		•	
751-3005/HD	MS red	•	•	•	•	751-8005	MS black	•	•	•	
751-3105	MS magenta red	•	•	•		751-9005	MS white	•	•	•	
751-3305	MS magenta	•	•	•							

HP High pigmented **HF** Free of halogen **PF** Free of PAH **HD** High opaque

Note: all acronyms used in this chart are explained in detail on the last page of this data sheet.

Other Colors

			HF	PF
ST Metallics	Series 751-100	ST silver	•	
	Series 751-100/HG	ST high gloss silver	•	•
	Series 751-103/HG	ST high gloss rich pale gold		•
	Series 751-200	ST mother of pearl	•	•
	Series 751-02299	ST silver coarse	•	
UV Luminescent Inks	Series 751-UL09/05	UV luminescent ink, yellow		•
	Series 751-UL16/05	UV luminescent ink, red		•
	Series 751-UL26/05	UV luminescent ink, blue		•
	Series 751-UL30/05	UV luminescent ink, green		•
Phosphorescent Ink	Series 751-PHQ47	Phosphorescent ink, green	n/a	•
ST Neon Colors	Color Chart / www.printcolor.ch/stcolorguide			
Special Colors	Pantone®, HKS, RAL and after customers sample			
Others	Series 751-00	ST white	•	•
	Series 751-00/HD	ST white, highly opaque	•	•
	Series 751-04	Transparent paste	•	•
	Series 751-05	ST varnish	•	•
	Series 751-05/MT	ST varnish, mat	•	•
	Series 751-33	ST black	•	•
	Series 751-33/B	ST deep black	•	•

Auxiliaries

Thinner	Series 700-017	Addition ratio	15–30 % by weight
Thinner (PAH free)	Series 700-037	Addition ratio	15–30 % by weight
Retarder*	Series 700-018	Addition ratio	5–20 % by weight
Retarder* (PAH free)	Series 700-038	Addition ratio	5–20 % by weight
Accelerator	Series 700-019	Addition ratio	15–30 % by weight
Accelerator (PAH free)	Series 700-039	Addition ratio	15–30 % by weight
Accelerator (fast, PAH free)	Series 700-041	Addition ratio	15–30 % by weight

* blended with Series 700-017.

Hardener	Series 700-GL	Series 700-GLH	Series 700-HDI
Application	Glass / Ceramics / Metals	Glass / Ceramics / Metals	Duroplasts / Aluminum / Steel / Polyolefins
Addition ratio	20:1	10:1	4:1
Reactivity	Medium reactivity from 20 °C	Medium reactivity from 20 °C	Higher reactivity from 15 °C
Chemical resistance	Very good	Very good	Very good
Outdoor resistance	Not recommended	Not recommended	Not recommended
Various	–	Halogen & PAH free	Halogen & PAH free

Note: a detailed overview of all available auxiliaries can be found in a separate data sheet.

Processing

Cliché

All commercially available printing forms can be used.

Drying

Drying of Series 751 depends on the layer thickness as well as on the substrate.

Usual parameters are (without addition of retarder):

Air	Physically fast drying
Dryer	Oven (recommended for best-possible resistance), IR-Dryer, continuous dryer

Curing

Bonding of the ink system depends on temperature, used hardener and layer thickness. To reach maximum resistance, a minimum temperature (see para „hardener“) must be guaranteed over a duration of 5 to 10 days. Higher temperature cures the ink film faster and chemical resistance is reached faster and is higher.

Curing times

Series 700-GL	5–7 days (at minimum temperature)
Series 700-GLH	5–7 days (at minimum temperature)
Series 700-HDI	5–7 days (at minimum temperature)
Forced drying	20 minutes at 140 °C (from 60 minutes at 80 °C up to 10 minutes at 180 °C)

Make sure you do not go below recommended temperatures within the first 48 hours. An increased moisture supply during the drying phase can damage the ink film permanently.

Pot life

MS colors and its blends have a pot life of 6–8 hours, depending on the hardeners used and the environmental conditions. Significantly shortened pot life has to be encountered with metallic colors.

Overprintability

Prior to complete curing of the ink.

Further processing

- › embossing
- › bending
- › punching
- › cutting (after pre-tests)

Cleaning

Series 700-BRT, Series 700-URT

Special Features & Tips

Dishwasher resistance	To increase dishwasher resistance, we recommend forced drying at 140 °C during 20 minutes.
Outdoor resistance	The used binder system only allows only a limited outdoor resistance.
Printing of toys and child-care articles	With the raw materials used the limits of EN 71-3:2013 are complied with. Please note that it is mandatory to analyze the printed end product. The responsibility for compliance with the legal requirements lies with the toymaker. Due to the special components of the pigments, metallic color shades, phosphorescent inks and highly opaque chromatic inks do not fulfill the requirements of EN 71-3:2013 standards. Detailed information: http://www.printcolor.ch/en/pad-printing-inks-for-toys.html
Swiss Ordinance on Materials and Articles	All materials of the series 751 are listed in the Swiss Ordinance on Materials and Articles (SR 817.023.21).
Extension of pot life	Series 700-GLH: 8–12 hours
Hardener, free of Halogen	Series 700-GLH

Others

Delivery	1 kg / 5 kg / 25 kg
Certificates / Standards	www.printcolor.ch/zertifikate
Other	Stir well before use. Information on shelf life can be found on the cover label.

Basic Color Systems

HP Basic Color Mixing System with high pigmented basic colors.

Safety Information

Actual Material Safety Data Sheets according to EC-Regulation 1907/2006 are available for all products, mentioned in this data sheet.

Issued on	Revision on	Edited by	Version
24/11/2014	13.8.2024	T18 / T12 / T30 / T35	14

Important Information

Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. This is not meant as an assurance for certain properties of the products nor for their suitability for each application. You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The selection and testing of the ink for specific applications is exclusively your responsibility. Should, however, any liability claims arise, such claims shall be limited to the value of the goods delivered by us and utilized by you with respect to any and all damages not caused intentionally or by gross negligence.