

Series 786

Highly resistant and user friendly 2C Pad Printing Ink

Highly glossy, extremely resistant and highly opaque pad printing ink, Series 786. Series 786 is based on raw materials free of PAH and halogens (see product range) and is suitable for printing of plastics, coatings and metals.

Series 786 does not contain Butyl Hydroxyacetate, which is classified as critical to the user's health. Typical applications are technical components, bottle caps and childcare products.

Application

- › Technical components
- › Automotive parts
- › Childcare products
- › Rotary pad printing (bottle caps)

Substrates

Substrate	Rating	Hints
Acrylic glass (casted PMMA)	★★★★★	
Rigid PVC	★★★★★	
Coated surfaces / powder coatings	★★★★★	
Polyamide (PA)	★★★★★	
Polyethylene (PE), pre-treated	★★★★★	
Polypropylene (PP), pre-treated	★★★★★	
Tritan™ (copolyester)	★★★★★	
ABS, SAN, copolymers	★★★★	
Duroplasts	★★★★	
Metals	★★★★	
PET-A	★★★★	
Polycarbonate (PC)	★★★★	
Polyester, non pre-treated	★★★★	
Polystyrene (PS), injection-molded parts of acryl glass	★★★★	
Polystyrene (PS), glossy	★★★★	
Polystyrene (PS), mat	★★★★	

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

Characteristics

Feature	Rating	Hints
Alcohol- and gasoline resistance	★★★★★	
Flexibility	★★★	
Gloss	★★★★★	Highly glossy
Resistance to hand sweat	★★★★★	
Light fastness	★★★★	
Abrasion resistance	★★★★★	
Pigmentation	★★★★★	
Temperature resistance	★★★★	
Drying	★★★	Ink film is quickly surface-dry
Water resistance	★★★★	
Weather resistance	★★★★★	

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

Product Range

MS Basic Colors

Article	Color	HP	HF	PF	HD	Article	Color	HP	HF	PF	HD
786-1005	MS light yellow	•	•	•		786-4005	MS violet	•		•	
786-1005/HD	MS light yellow	•	•	•	•	786-5005	MS blue	•	•	•	
786-1105	MS medium yellow	•	•	•		786-5005/HD	MS blue	•	•	•	•
786-1205	MS dark yellow	•		•		786-6005	MS green	•		•	
786-2005	MS orange	•		•		786-6005/HD	MS green	•		•	•
786-3005	MS red	•	•	•		786-6015	MS green	•	•	•	
786-3005/HD	MS red	•	•	•	•	786-8005	MS black	•	•	•	
786-3105	MS magenta red	•	•	•		786-9005	MS white	•	•	•	
786-3305	MS magenta	•	•	•							

HP High pigmented **HF** Free of Halogen **PF** Free of PAH **HD** Highly opaque

Other Colors

		HF	PF
ST-Metallics	Series 786-100	ST silver	•
	Series 786-100/HG	ST high gloss silver	•
	Series 786-103	ST rich pale gold	•
	Series 786-103/HG	ST high gloss rich pale gold	•
	Series 786-200	ST pearlescent	•
	Series 786-02299	ST silver coarse	•
ST-Process Colors	Series 786-0950	ST process cyan	•
	Series 786-0960	ST process yellow	•
	Series 786-0970	ST process magenta	•
	Series 786-0980	ST process black	•

			HF	PF
UV Luminescent Colors	Series 786-UL09/05	UV luminescent ink, yellow	n/a	•
	Series 786-UL16/05	UV luminescent ink, red	n/a	•
	Series 786-UL26/05	UV luminescent ink, blue	n/a	•
	Series 786-UL30/05	UV luminescent ink, green	n/a	•
Phosphorescent Ink	Series 786-PHQ47	Phosphorescent ink, green	n/a	•
Others	Series 786-00	ST white	•	•
	Series 786-00/HD	ST white, highly opaque	•	•
	Series 786-04	Transparent paste	•	•
	Series 786-05	ST Varnish	•	•
	Series 786-05/MT	ST Varnish, mat	•	•
	Series 786-33	ST black	•	•
	Series 786-33/B	ST black, intense	•	•
Special Colors	Pantone [®] , HKS, RAL and after customers sample			

Legend n/a No information available

Auxiliaries

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

* Blended with Series 700-017.

Hardener	Series 700-HDA	Series 700-HDI
Application	Universal	Universal
Addition ratio	4:1	4:1
Reactivity	Medium reactivity from 20 °C	Medium reactivity from 15 °C
Resistance against chemicals	Very good	Very good
Outdoor resistance	Very good	Limited
Various	Halogen and PAH free	Halogen and PAH free

Hardener	Series 700-HDG	Series 700-HDS
Application	Fast drying	Extra resistant
Addition ratio	4:1	4:1
Reactivity	Medium reactivity from 20 °C	Medium reactivity from 23 °C
Resistance against chemicals	Good to very good	Excellent
Outdoor resistance	Very good	Excellent
Various	Halogen and PAH free	Halogen and PAH free

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

Processing

Cliché

All commercially available clichés can be used.

Drying

Drying of Series 786 depends on the layer thickness and on the substrate.

Usual parameters (no addition of retarder):

Air	Physically fast drying
Dryer	Oven, IR-dryer , continuous dryer

Curing

Curing of the ink systems is depending on the temperature, the used hardeners and the layer thickness. A minimum temperature (see point "hardener") over a period of 5 to 10 days must be guaranteed to reach maximum resistance. By increasing temperature, the ink film cures more quickly and chemical resistance is reached sooner and higher.

Curing times

Series 700-HDA	7 days (at minimum temperature)
Series 700-HDI	4-5 days (at minimum temperature)
Series 700-HDS	10 days (at minimum temperature)
Series 700-HDG	5-6 days (at minimum temperature)
Forced Drying	From 20 minutes at 140°C up to 60 minutes at 80°C

It is important to ensure, that temperatures do not fall below within the first 48 hours. An increased moisture supply during drying time can permanently damage the ink film.

Pot life

MS colors and its blends have a pot life of 4-8 hours, depending from the hardeners used and depending on environmental conditions. Significantly shortened pot life has to be encountered with metallic colors.

Cleaning

Series 700-BRT, Series 700-URT

Special Features & Tips

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 786 are listed in the Swiss Ordinance on Materials and Articles (SR 817.023.21).

Others

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

Basic Color Systems

HP Basic mixing system with highly 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.

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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 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.