

Series 784

Highly resistant 2C Pad Printing Ink

Highly glossy, very resistant and highly opaque pad printing ink, Series 784 for printing on plastics, coatings and metals.

Typical applications are technical components and childcare articles.

Application

- › Technical components
- › Automotive parts
- › Childcare articles
- › Rotary pad printing (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	★★★★	
Metal	★★★★	
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	HD	Article	Color	HP	HD
784-1005	MS light yellow	•		784-3305	MS magenta	•	
784-1005/HD	MS light yellow	•	•	784-4005	MS violet	•	
784-1105	MS medium yellow	•		784-5005	MS blue	•	
784-1205	MS dark yellow	•		784-5005/HD	MS blue	•	•
784-2005	MS orange	•		784-6005	MS green	•	
784-3005	MS red	•		784-6005/HD	MS green	•	•
784-3005/HD	MS red	•	•	784-8005	MS black	•	
784-3105	MS magenta red	•		784-9005	MS white	•	

HP High pigmented **HD** High opaque

Note I: All abbreviations used in this chart are explained in detail on the last page of this data sheet.

Other Colors

ST Colors	ST Color Chart / www.printcolor.ch/stcolorguide
ST Metallics	ST Color Chart / www.printcolor.ch/stcolorguide
ST Neon Colors	ST Color Chart / www.printcolor.ch/stcolorguide
Special Colors	Pantone®, HKS, RAL and after customers sample
Others	Series 784-00 ST white
	Series 784-00/HD ST white, highly opaque
	Series 784-04 ST transparent paste
	Series 784-05 ST varnish
	Series 784-05/MT ST varnish, mat
	Series 784-06 Retarder paste
	Series 784-33 ST black
	Series 784-33/B ST black, intensive

Auxiliaries

Thinner	Series 700-017	Addition ratio	15-30% by weight
Thinner (free of PAH)	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 (fast, free of PAH)	Series 700-041	Addition ratio	15-30% by weight

* Blended with Series 700-017.

Hardener	Series 700-HDA	Series 700-HDS	Series 700-HDI
Application	Universal	Extra-resistant	Fast drying
Addition ratio	4:1	4:1	4:1
Reactivity	Medium reactivity from 20°C	medium reactivity from 23°C	High reactivity from 15°C
Resistance against chemicals	Very good	Excellent	Good
Outdoor resistance	Very good	Excellent	Not recommended

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 784 depends on the layer thickness as well as on the substrate.

Usual parameters (no addition of retarder):

Air	Physically 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-HAD	7 days (at minimum temperature)
Series 700-HDS	10 days (at minimum temperature)
Series 700-HDI	5 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

Adhesion on non-pretreated PP	Adhesion can be improved by addition of Series 700-PP (20% by weight). In this case the ink has to be used as a 2C ink.
Detail reproduction and printability	Series 784 convinces by excellent detail reproduction and printability.

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 primary 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.