

Series 347

Solvent based Screen Printing Ink for Membrane Switches

This glossy and high pigmented solvent screen printing ink, series 347, has specifically been developed for the high demands of membrane switches. The printed ink layers are permanently elastic and

highly resistant. Typical applications are decorative and functional designing of coated polyester and polycarbonate films.

Application

- › Membrane switches
- › Signage
- › Labels/ sticker

Substrates

Substrate	Rating	Hints
Polyester, primered	★★★★★	
Primered / coated foils	★★★★	
Polycarbonate (PC)	★★★★	
Plasticized PVC self-adhesive foils	★★★★	
ABS, SAN, copolymers	★★★	
Rigid PVC	★★★	
Rigid PVC, foamed	★★★	
Paper, cardboard	★★	

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

Note: A full overview of substrates of series 300 can be found here: www.printcolor.ch/substrates

Characteristics

Feature	Rating	Hints
Alcohol- and gasoline resistance	★★★★	The resistance of back print inks is restricted (347-xx-D/MT).
Resistance to adhesives	★★★★★	
Block resistance	★★★	
Flexibility	★★★★★	
Gloss	★★★★	Glossy
Resistance to hand sweat	★★★★	
Light fastness	★★★★★	
Abrasion resistance	★★★★	The resistance of back print inks is restricted (347-xx-D/MT).
Pigmentation	★★★★★	
Screen openness	★★★★	
Temperature resistance	★★★★	
Drying	★★★	
Moldability	★★★★★	Embossing
Weather resistance	★★★★	

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

Adhesion development

On all PET and PC films from Autotyp, Technoplast/Folex, Rexam, Bayer, GE and others suitable for front films, ink adhesion test according to DIN EN ISO 2409.

Peel strength and tack values

High peel adhesion and tack values with adhesive tapes from Lohmann, 3M etc. and with suitable printable adhesive systems, tested according to DIN EN 1939.

Resistance

Chemical resistance to adhesive and plasticizer influences to ensure a durable bond between film, ink and adhesive.

Flexibility

Flexibility of all ink shades for durable mechanical resistance of the front foils (according to DIN 41115) and for further processing such as die-cutting, cutting, cold and hot stamping, etc.

Opacity

Unsurpassed hiding power of MS base inks series 388-MS/HP (Highly Pigmented) and of the backprinting inks.

Glaze and brilliance

Maximum glaze and brilliance of MS base colors series 388/HL (high glaze).

Crack resistant metallic colors

See *ST metallic colors*

Product Range

MS Basic Colors

Article	Color	HP	HT	Article	Color	HP	HT
347-1000	MS light yellow	•		347-3100	MS magenta-red	•	•
347-1010	MS yellow		•	347-3200	MS dark red	•	•
347-1020	MS real yellow		•	347-3300	MS-magenta	•	•
347-1100	MS medium yellow	•		347-4000	MS violet	•	•
347-1200	MS dark yellow	•		347-4500	MS dark blue		•
347-1300	MS yellow-orange		•	347-5000	MS blue	•	•
347-2000	MS orange	•		347-6000	MS green	•	•
347-2100	MS pure orange		•	347-7000	MS brown	•	
347-3000	MS red	•		347-8000	MS black	•	•
347-3050	MS light red		•	347-9000	MS white	•	•

HP High pigment

HT High transparent

Note I: The MS base colors must be processed in combination with the corresponding binder series 347-07 (min. 20 to max. 30 % by weight).

Note II: The abbreviations used in the table are explained in more detail on the last page of this data sheet.

Further colors

ST metallic colors	Series 347-100	ST silver, easySWITCH
	Series 347-100/HG	ST high gloss silver, easySWITCH
	Series 347-02299	ST coarse silver, easySWITCH
	Other metallic colors on request.	
ST neon colors	On request	
ST screen colors	See technical information: screen colors	
Special colors	Pantone [®] , HKS, RAL and after template	
Background Colors	Series 347-00/D	ST gloss white, easySWITCH
	Series 347-00-D/MT	ST matt white, easySWITCH
	Series 347-33/MT	ST matt black, easySWITCH
	Series 347-33-D/MT	Opaque black, lightproof
	Series 347-33/512	Opaque black (non conductive black)
	Series 347-RAL7035/D	Opaque gray, glossy, easySWITCH
	Series 347-RAL7035/D-MT	Opaque gray, matt, easySWITCH
	Series 347-9100/D	Barrier layer, gray, glossy, easySWITCH
	Series 347-9100/D-MT	Barrier layer, gray, matt, easySWITCH
Special products	Series 447-xx	Print-and-Peel, water-based (see separate fact sheet)
easySWITCH	Series 547-15019	UV adhesive
	Series 547-05/Gloss	UV viewing window varnish
	Series 547/05/Antiglare	UV viewing window coating, non-reflective
	Series 547-05/F	UV textured varnish, fine
	Series 547-05/V	UV textured varnish, coarse
	Series 647-05/Gloss	2K viewing window varnish
	Series 647-05/Antiglare	2K viewing window varnish, non-reflective
	Series 647-05/F	2K textured varnish, fine
	Series 647-05/V	2K textured varnish, coarse

Others	Series 347-05	Printing/Cutting varnish, easySWITCH
	Series 347-06/Lang	Retarder paste, easySWITCH
	Series 347-07	MS binder, easySWITCH
	Series 347-33	ST black, easySWITCH

Auxiliaries

Thinner	Series 300-017	Addition ratio	15–30 % by weight
Thinner für Rasterfarben	Series 300-017/ISO	Addition ratio	15–30 % by weight
Retarder	Series 300-018	Addition ratio	max. 20 %by weight
Retarder for screen colours	Series 300-018/ISO	Addition ratio	max. 15 %by weight
Accelerator	Series 300-019	Addition ratio	15–30 %b weight

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

Processing

Mesh

All commercially available mesh can be used.

Stencils

All commercially available and solvent resistant stencils can be used.

Drying

Drying of series 347 depends on the layer thickness as well as on the substrate and the auxiliaries used.

Usual parameters (without addition of retarder):

Air	Physically drying at 20 °C room temperature / 50 % relative humidity. Overprintable after 5 to 10 minutes.
Dryer	Depending in the dryer performance the prints are stackable after 30–60 seconds. The recommended drying temperature is 40 to 60 °C

Further processing

- › Punching
- › Deforming / Embossing
- › Cutting
- › Deep drawing
- › Laminating
- › Folding
- › Grooving

Cleaning

Stencils and squeegees should promptly be cleaned with series 300-URS or series 300-BRS.

Special Features & Tips

Color Mixing System (MS)	MS color series 347 + binder series 347-07 (min. 20 to max. 30 % by weight)
MS modular system	See technical information: MS modular system
Compatibility	Can be combined with the special products of series 447, 547 and 647

Productivity

Depending on the color shade and the substrate used, a productivity of 50–70 m²/kg is to be expected with press-ready ink (20 % thinner) and use of a mesh 120.34.

Others

Delivery quantities	1 kg / 5 kg / 25 kg
Certificates / standards	www.printcolor.ch/certificates
Sonstiges	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.
- HR** Thermostable mixing inks with a heat resistance of 200 °C/>30 minutes.
- HT** Highly transparent combination colors for high glaze coloring.
- HL** High light fast color for long-term outdoor use.

Safety Information

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

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.

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