

# Series 632

## Silicone-free 2C Screen Printing Ink for Glass, Metals, and Duroplasts

Highly opaque 2-component screen printing ink Series 632 based on highly resistant raw materials for printing on glass, various metals, and duroplasts. With a few exceptions (see *Product Range*), the Series 632 product range contains no halogens. However, determined by the system, some individual color shades have halogen-containing pigments. The entire product range of Series 632 is free of silicone, cyclohexanone, and aromatic solvents (PAH). Further advantages in-

clude excellent processability, excellent adhesion, and high chemical resistance. Typical applications are decorative glass, touch panels, scales, or speedometers for indoor use. Thanks to the silicone-free formulation, for the production of touch panels, perfect adhesion between the ink film and the adhesives is achieved. However, due to a large number of available adhesives, this must be tested on the final product.

### Application

- › Decorative glass
- › Elevator panels
- › Scales
- › Furniture glass
- › Speedometers
- › Audio systems

### Substrates

Substrate	Rating	Advice
Duroplasts	★★★★★	
Glass / ceramics	★★★★★	
Rigid PVC	★★★★★	
Polyamide (PA)	★★★★★	
Polyethylene (PE), pre-treated	★★★★★	
Polyoxymethylene (POM)	★★★★★	Post-treatment (flame) and hardener Series 600-HDI required
Polypropylene (PP), pre-treated	★★★★★	
Metal	★★★★★	
ABS, SAN, copolymers	★★★★	
Coated surfaces / powder coatings	★★★★	
Polycarbonate (PC)	★★★★	
Polyester, untreated	★★★★	
Acrylic glass (PMMA cast)	★★★	

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

## Properties / Characteristics

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

**Legend**      ★★★★★ Excellent product properties      n/a No information available  
 ★ Product properties not available

## Product Range

### MS Basic Colors

Article	Color	HP	HF	PF	SF	Article	Color	HP	HF	PF	SF
632-1006	MS light yellow	•		•	•	632-3306	MS magenta	•	•	•	•
632-1106	MS medium yellow	•	•	•	•	632-4006	MS violet	•		•	•
632-1206	MS dark yellow	•		•	•	632-5006	MS blue	•	•	•	•
632-2006	MS orange	•		•	•	632-6006	MS green	•		•	•
632-3006	MS red	•	•	•	•	632-8006	MS black	•	•	•	•
632-3106	MS magenta red	•	•	•	•	632-9006	MS white	•	•	•	•

**HP** High pigmented      **HF** Free of halogens      **PF** Free of PAH      **SF** Silicone-free

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

Other Colors

			HF	PF	SF
<b>ST Metallics</b>	Series 632-100	ST silver	•	•	•
	Series 632-100/HG	ST high gloss silver	•	•	•
	Series 632-102	ST rich gold	•	•	•
	Series 632-103	ST rich pale gold	•	•	•
	Series 632-103/HG	ST high gloss rich pale gold		•	•
	Series 632-200	ST mother of pearl	•	•	•
	Series 632-02299	ST silver coarse	•	•	•
<b>Special Colors</b>	Pantone <sup>®</sup> , HKS, RAL, and after customers sample				
<b>Others</b>	Series 632-00	ST white opaque, glossy	•	•	•
	Series 632-00/MT	ST white opaque, mat	•	•	•
	Series 632-04	ST transparent paste	•	•	•
	Series 632-05	ST varnish	•	•	•
	Series 632-05/MT	ST varnish, mat	•	•	•
	Series 632-05/478	Varnish, high transparent	•	•	•
	Series 632-05/SV	Scatter varnish	•	•	•
	Series 632-05/EI	Etch imitation	•	•	•
	Series 632-05/SI	Sand blasting imitation	•	•	•
	Series 632-07	Binder	•	•	•
	Series 632-33	ST black	•	•	•
	Series 632-33/HD	Black, high opaque, non-conductive	•	•	•

Auxiliaries

<b>Thinner</b>	Series 600-037	<b>Addition ratio</b>	5-15 % by weight
<b>Retarder</b>	Series 600-038	<b>Addition ratio</b>	5-15 % by weight
<b>Hardener</b>	Series 600-GLH	<b>Addition ratio</b>	10:1
	Series 600-GL		20:1

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

Hardener

	Series 600-GL	Series 600-GLH	Series 600-HDI
<b>Application</b>	Glass / ceramics / non-ferrous metals	Glass / ceramics / metals	Duroplasts / aluminum / sheet metal
<b>Addition ratio</b>	20:1	10:1	4:1
<b>Reactivity</b>	Medium reactivity from 20 °C	Medium reactivity from 20 °C	Higher reactivity from 15 °C
<b>Resistance to chemicals</b>	Excellent	Very good	Very good
<b>Outdoor resistance</b>	Not recommended	Not recommended	Not recommended
<b>Various</b>	-	Free of PAH & Halogen	Free of PAH & Halogen

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

## Processing

### Mesh

All commercially available polyester mesh can be used.

### Stencils

All commercially available stencils can be used.

### Drying

Drying of Series 632 depends on the layer thickness, the substrate, and the auxiliaries used.

Usual parameters (without the addition of retarder):

<b>Air</b>	Physically fast drying.
<b>Oven (recommended)</b>	80 °C / 60 minutes up to 140 °C / 20 minutes

### Curing

Bonding of the ink system depends on temperature, used hardener, and layer thickness. To reach maximum resistance, a minimum temperature (see chapter "hardener") must be guaranteed for 5 to 10 days. By increasing the temperature, the ink film cures faster and earlier, and even better chemical resistance can be achieved.

### Curing times

<b>Series 600-GL</b>	5-7 days (at minimum temperature)
<b>Series 600-GLH</b>	5-7 days (at minimum temperature)
<b>Series 600-HDI</b>	7 days (at minimum temperature)
<b>Forced drying</b>	80 °C / 60 minutes up to 140 °C / 20 minutes

It is essential to ensure that temperatures do not fall below the minimum temperature (see chapter "hardener") within the first 48 hours. An increased moisture supply during drying time can permanently damage the ink film.

## Special Features & Tips

<b>Extension of pot life</b>	Series 600-GLH: 8 to 12 hours
<b>Hardener, free of Halogen</b>	Series 600-GLH

## Productivity

Depending on the color shade, a productivity of 45-65 m<sup>2</sup>/kg is expected with press-ready ink and the use of a mesh 120.34.

## Others

<b>Delivery</b>	1 kg / 5 kg
<b>Certificates / Standards</b>	<a href="http://www.printcolor.ch/zertifikate">www.printcolor.ch/zertifikate</a>
<b>Others</b>	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
29.11.2022	-	T12 / T33	1

## 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.