

## PRODUCT GROUP 300

### Series 320-07/xxx Special Binders for Series 320



Three new special binders have been added to the system concept of Series 320 which extraordinarily widens the application possibilities of this series. Based on our idea of the MS mixing system (i. e. MS-388), 80% by weight of the MS-320 basic colors will be mixed with (at least) 20% binder Series 320-xxx to achieve individual product properties. Thus, application possibilities of this jet drying ink series will be enlarged and at the same time stocking will be reduced by higher application flexibility of Series 320. The basic characteristics of Series 320, like mechanical and chemical resistance or outdoor application properties will basically not be influenced when applying the variations of the binder components.

#### **Series 320-07, ST-Binder**

When mixing the basic colors 320-MS with the standard binder Series 320-07, the characteristic product properties of Series 320 will be achieved (see separate TDS Series 320). Those are i. e. fast drying, extremely good block resistance after drying (also when printed on both sides of the substrate), good adhesion on plastics, especially on Polystyrene and its modifications like ABS, SAN, a. s. o. Instead of using the standard binder Series 320-07, the end properties of the applied ink layer or the printing characteristics in progress can be modified as follows (by means of the alternative components):

#### **Series 320-04, ST-Transparent Paste**

Adjusting of a thixotropic ink consistency for printing of sharp contours, no influence on drying properties.

#### **Series 320-06, ST-Retarder Paste**

Adjusting of a thickening, retarded printing rheology for application of fine letters and details or printing of finest, negative print images, long openness in the printing process.

#### **Series 320-03, ST-Wax Paste**

Adjusting of a high abrasion resistance, slightly matting, high slip (abrasion resistance)

#### **Series 320-00/M, ST-Mat Paste**

Adjusting of a mat, none-reflective surface, no change in process properties of the ink

#### **Series 320-07/PP, Polypropylene Binder**

When mixing the basic colors 320-MS with the special binder Series 320-07/PP, the adhesion spectrum of Series 320 will be enlarged to Polypropylene (also pre-treated). The addition ratio is at least 25% by weight of the MS- basic colors of Series 320, it can however (in critical cases of adhesion) be increased to 40-50% by weight. In any case, pre-tests are necessary since PP is very often extruded with a "regenerate" and thus does not represent a real substrate.

#### **Series 320-07/PET, Polyester Binder**

When mixing the basic colors 320-MS with the special binder Series 320-07/PET, the application range on PET materials (but especially on PET-A and PET-G [PET-GAG]) can be enlarged. When adhesion on PET-G is normally none problematic, it can however be more difficult on PET-A, since this material is usually modified with recycled raw materials and thus has an indifferent composition. When using transparent foils, one has to pay attention that PET-A does have a front and a back side with unlike properties and which can lead to different adhesion results.

#### **Series 320-07/Flex, Flexibilization Binder**

When mixing the basic colors 320-MS with the flex binder Series 320-07/Flex, the inks system will get more elastic/flexible and reaches higher long-term elasticity. This variation is recommended when printing onto PVC materials, especially onto self adhesive foils and production of double-side readable decals.. Modification with this special binder reduces the tendency to edge scrolling and brittleness tendency of the soft PVC-materials.

There are no limits to ones creativity with this MS-binder concept since all binders can also be mixed with each other. In some cases this could be the solution to printing or material property problems. It has also to be mentioned that by adding of hardener, i.e. Series 600-HDA, resistances of Series 320 will be increased. The addition ratio normally lies at 10% by weight.



SUBSTRATES	BINDER	ADDITION RATIO
PET-A / -G / -GAG	Series 320-07/PET	20-30 % by weight
PP	Series 320-07/PP	20-30 % by weight
Self adhesive foil	Series 320-07/FLEX	10-20 % by weight

USE	
<b>Application</b>	Plastics in the field of promotion/advertising and display materials; especially double-side applications, stickers- and label printing, paper- and cardboard decorations
	Industrial and graphical applications for indoor- as well as for outdoor use

PROPERTIES, PROCESSING, DRYING AND MESH	
<b>Mesh</b>	77-55 up to 120-34 Y PW PET 1000 (effects also coarser)
<b>Drying / Curing</b>	Jet- / air drying, optionally oven drying
<b>Further Processing</b>	Punching, cutting, grooving

ADDITIVES			
<b>Thinner</b>	Series 300-017	<b>Addition Ratio</b>	10-20 % by weight
<b>Thinner, aggressive</b>	Series 300-017/01	<b>Addition Ratio</b>	10-20 % by weight
<b>Thinner, mild</b>	Series 310-017	<b>Addition Ratio</b>	10-20 % by weight
<b>Thinner, 4C-process</b>	Series 300-017/ISO	<b>Addition Ratio</b>	10-20 % by weight
<b>Retarder</b>	Series 300-018	<b>Addition Ratio</b>	10-20 % by weight
<b>Retarder, mild</b>	Series 310-018	<b>Addition Ratio</b>	10-20 % by weight
<b>Retarder, 4C-process</b>	Series 300-018/ISO	<b>Addition Ratio</b>	10-20 % by weight

VARIOUS	
<b>Delivery Conditions</b>	1 kg / 5 kg / 25 kg
<b>Other</b>	Stir well before use

**Disclaimer**

Please thoroughly read the Material Safety Data Sheet (MSDS) prior to processing. The Material safety Data Sheets according to 91/155/EWG form, contain indications of hazardous ingredients. Exposure levels and instructions for precautions when processing, handling and storing as well as first aid. The information given in the MSDS refers to the processing as described within this technical leaflet. Above data are based on laboratory tests and field experience. All therein contained statements are to the best of our knowledge without any obligation from our side and do not discharge from testing the product by yourself. In doubtful cases, you are kindly requested to either perform your own tests or refer to our technical staff. Application, use and processing of the delivered products are beyond our control and are therefore at your own risk and responsibility. Printcolor is thus free from any guarantees or liabilities. In cases of justified complaints, Printcolor can only be made liable for the counterpart of the utilized ink system. Adding not stated products or foreign / competitors products, is solely at your own risk and liberates Printcolor of any later calls; especially in cases when damages occurred and which have been caused through use of products of foreign type. This leaflet replaces all former issues. (11/2010)