Product description:

UNIPAK WB 28 series are water borne flexo printing inks. The stabilised one-component inks are based on leafing bronze pigments

- Primarily designed for use on coated paper and board substrates.
- Based on highly optimised varnish technology providing excellent flexo print performance and stability.
- Uses coarser-grained metallic pigments that give a good metallic brilliance and coverage.
- Suitable for printing both narrow web and wide web.
- Excellent gloss and good colour strength.
- Easy press clean-up
- Rapid drying
- < 1% VOC's
- PANTONE® shades 871-873 available

The products of the ink series UNIPAK WB 28 is water based, but formulated neither low-migration nor low-odour. Due to our production processes for these products, we cannot guarantee necessary measures for FCM (Food Contact Materials), such as special raw material selection, control of raw materials and end products regarding composition and impurities or production according to GMP.
A SoC is therefore not available for these products.
When using these products in indirect food contact, the suitability for this application has to be tested before commercial use by the user through suitable analyses.

Application:

UNIPAK WB 28 series are water borne flexo printing inks.

Ideal suitable for paper and carton board substrates, e. g. wet glue labels, wall paper, gift wrap, corrugated board, flexible paper, folding carton, etc. For narrow web and wide web applications.

As with all metallic inks the substrate has an influence on the final result. Very absorbent or uneven substrates often cause poor pigment orientation resulting in inferior brilliance. In some cases, the use of primers to improve the substrate surface is advantageous.

Product properties:

Rub resistance and lamination properties:

UNIPAK WB Flexo 28 series is wax-modified. Due to the very high pigment content, it is however advisable to apply a water based overprinting varnish to achieve the required rub resistance.

The rub resistance can be increased through the addition of polyethylene waxes. Careful test must be carried out prior to production runs.

Overprintability:

UNIPAK WB 28 series inks can be overprinted in-line. Due to the leafing properties of the gold bronze pigments used in these inks over printability with other inks has to be checked carefully.

A modification of the surface tension of the coloured ink might be necessary to achieve good wetting of the metallic ink.

Adhesion:

Adhesion on typical paper and carton qualities is usually good. As a result of the strong leafing behaviour of the gold bronze pigments, intercoat adhesion in the case of lamination or over lacquering can not be taken for granted. Especially in cases with high metallic percentage intercoat adhesion has to be carefully tested before commercial application.

Due to the large variety of substrates, it is recommended, to test the suitability of UNIPAK WB 28 series inks prior to any commercial use.

Additional product properties:

UNIPAK WB	2868 RG 2869 RPG	PMS871 2771 PMS872 2772 PMS873 2773
Pigment content	appr. 38.5 %	appr. 38.0 %
Pigment size (D_{50})	appr. 6 µm	appr. 6 µm
Solid content	appr. 65 %	appr. 65 %
pH-Value	7.0 – 9.5	7.0 – 9.5
VOC	< 1 %	< 1 %
Brilliance	***	***
Hiding power	**	**

For specifications of our products, please refer to the technical data sheet.

Recommended printing parameters:

Anilox Configuration:

The higher the cell volume used, the better the achievable metallic effect.

The following parameters have shown to be useful:

	L/cm	L/inch	Volume cm^3/m^2	Volume BCM/in^2
Solid area & broad lines:	60-100	150-250	8-12	5-8
Fine Lines	80 - 200	200-500	5-8	4-5

Printing speed:

The maximum printing speed is dependent on press conditions, substrate and the chosen cell volume. It therefore has to be adjusted to the given conditions.

With sufficient heating power, printing speeds of 150 m/min and more should be possible.

Printing viscosity: 25 – 35 s (DIN 4-cup)

For special applications a viscosity out of this range might be useful.

Water might evaporate during the printing, which would lead to an increase of viscosity and this might impact the print quality in a negative way. Check viscosity during printing regularly and adjust, if necessary with water.

Dilution:

The inks should be diluted to printing viscosity with water.
If the drying of the ink is too fast, retarders (propylene glycol, max. 10%) can be used during viscosity adjustment.

Additives:

	Additive	Dose
Medium	UNIPAK WB Extender 2091	max. 50%

This additive is designed for individual modification of ink properties and should be added only shortly before printing. A negative effect on optical properties may occur. This should be checked before commercial use.

Cleaning recommendations:

UNIPAK WB inks can be easily cleaned with water. If water is not sufficient, usual available cleaners can be used. Also a 50/50 blend of water with alcohols (ethanol, isopropanol, etc.) and further add ons (e. g. wetting aids, alkaline cleaners, etc.) can be used.

In any case contamination of the ink with cleaning agents must be avoided in order to maintain stability and optical properties.
Please refere to the safety data sheet for safety instructions.

Handling:

UNIPAK WB 28 inks are stable one-component inks with excellent metallic effect and brilliance. The inks can be printed as delivered or after adjusting viscosity.

However, blending of UNIPAK WB 28 inks with other components should only be done on ECKART's recommendation in order to avoid a possible decrease in quality.

Metallic inks tend settle because of the high specific gravity of the pigment. This is normal and not due to a lack of quality. The inks can be easily stirred up and homogenised again. This should be done before viscosity is checked. No pigment settling should be left on the bottom of the container.

Please refer to Material Safety Data Sheets of UNIPAK WB 28 series for further information.

Storage and transportation:

All UNIPAK WB inks should be stored at temperatures below 25°C. High temperatures as well as very low temperatures during storage and transportation should be avoided as those conditions might damage the product (oxidation/loss of brilliance or precipitation of binder/additive with low solubility).

It is recommended to keep drums tightly shut and avoid unnecessary opening.

Shelf life: 6 months

Important: ECKART strongly recommends disposing of used ink after running on press, as the shelf-life of this material can be greatly reduced due to various factors such as light, heat, contaminants etc.
ECKART cannot guarantee the shelf life of printing ink which has been previously used or modified, nor for ink which has been stored out with the conditions above.

For further information or samples, please contact:

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Article-No.:	Product name:
025505..	UNIPAK WB 2868 RG
025499..	UNIPAK WB 2869 RPG

Article-No.:	Product name:
025469..	UNIPAK WB PMS871 2871
025476..	UNIPAK WB PMS872 2872
025477..	UNIPAK WB PMS873 2873