



Frits, Glaces & Inks

CATALOGO TINTAS DIGITALES





Tintas Cerámicas

Las tintas cerámicas para tecnología inkjet son un nuevo producto que ha irrumpido con fuerza desde hace unos años en la producción cerámica a nivel internacional. Estas tintas son fruto de la apuesta por la I+D+i de las empresas de maquinaria y esmaltes españolas, permiten decorar el 100% de la pieza cerámica antes de su cocción mediante un mecanismo de 'chorro de tinta' (inkjet), con un proceso muy similar al de una impresora de papel, sin contacto con la pieza, por lo que se pueden decorar todo tipo de piezas y relieves minimizando las roturas.

Sin embargo, las tintas cerámicas difieren significativamente de las tintas de impresión inkjet "convencionales" usadas para la decoración gráfica de otros materiales como papel, plásticos o textiles por el proceso de cocción posterior que requiere el uso de materias primas completamente diferentes, como los pigmentos inorgánicos, capaces de resistir las altas temperaturas a las que se cuecen los azulejos. Además, estos pigmentos son altamente resistentes a la luz y permiten una gran durabilidad. Tras las tintas digitales pigmentadas, se desarrollaron tintas digitales que proporcionaban efectos cerámicos, llegando finalmente a aplicar también de forma digital los esmaltes cerámicos. Con todo ello las baldosas cerámicas se pueden producir hoy en día de manera totalmente digital.

El esmaltado y la decoración digital, permite crear productos completamente diferentes y variados entre sí, con nuevos efectos decorativos y elevado valor añadido, pudiendo personalizarse completamente la decoración de cada pieza, reproducir fielmente las imágenes que se desee, realizar diseños de gran tamaño evitando la repetitividad de piezas y aumentando las alternativas de diseño, así como hacer tiradas cortas, etc, con una calidad y definición muy superior a la conseguida con las tecnologías precedentes, y con un gran ahorro en tiempo y material.

El proceso está totalmente automatizado y asistido informáticamente, los cambios de modelaje o gráfica son más rápidos y menos costosos ya que se pasa directamente de una imagen digitalizada a la máquina de producción, lo que permite productos más diferenciados con resultados óptimos y una mayor variedad de producto sin incremento de costes. Es una tecnología muy limpia en la que se aprovecha completamente el producto, permite reducir los fungibles, no genera residuos adicionales y elimina el uso de otros elementos que antes eran necesarios como aditivos, etc., todo esto se traduce en un mayor respeto al Medio Ambiente y en un aumento de la seguridad laboral.

Ceramic Inks

Inkjet technology ceramic inks are a new product that has been highly introduced in the ceramic Industry around the world since 2010. These inks were born thanks to the enamel and machinery Spanish companies, and their bet in R+D+I. The mechanism is very similar to the one of a paper ink printer (inkjet), and prints the tile without having any direct contact with the piece. That permits the decoration of any kind of tiles and low reliefs, minimizing the % of broken pieces, and allows the decoration of the 100% of the ceramic tile before being introduced in the furnace.

This new technology, much more versatile, permits the creation of completely different products, and a wider variety of decorative effects. The decoration of each piece can be completely personalized and customized, accurately reproducing the selected images. This gives the possibility of larger sized designs and increments the design possibilities, avoiding the repetitiveness of the pieces. Also gives a quality and definition than couldn't be achieved with the previous traditional methods.

The process is completely computer- assisted and monitored. This way, the model changes are quicker since they go directly from the digital image to the printing machine, providing different products with optimum results, and a wider product variety while saving time and money. It's also a very clean technology that makes the most of the product, does not generate additional waste, and does not need the use of additives. All these translates into a larger environmental and human labour protection.

However, the ceramic inks highly differ from inkjet conventional graphic decoration inks used on materials such as paper, plastic or textile. Ceramic inks pass through a posterior firing process together with the tile, and that requires the use of completely different raw materials, such as inorganic pigments, which are able to resist the high temperatures of the ceramic furnaces. These pigments are also highly resistant to the light and permit a large durability.

TINTAS DIGITALES

CCB COLORS ofrece una amplia gama de colores y tintas de alta calidad y rendimiento, adecuadas para todo tipo de cabezales de impresión y diseñadas para satisfacer todas las necesidades. Nuestras diversas tintas de tecnología ECO presentan una solución avanzada en tecnología digital, ofreciendo colores más intensos y efectos digitales que confieren a las cerámicas un valor extra en diseño.

- Tinta Azul
- Tinta Cyan
- Tinta Marrón
- Tinta Amarilla
- Tinta Beige
- Tinta Negra
- Tinta Rosa
- Tinta Verde
- Tinta Blanca
- Tinta Hidrorepelente
- Tinta Reactiva
- Tinta Lustre
- Tinta Mate
- Tinta Brillo
- Tinta Metálica
- Tinta Glue

DIGITAL INKS

CCB COLORS offers a wide range of high-quality, high-performance colors and inks, suitable for all types of print heads and designed to meet all needs. Our various ECO technology inks present an advanced solution in digital technology, offering more intense colors and digital effects that give ceramics extra value in design.

- Blue ink
- Cyan ink
- Brown Ink
- Yellow Ink
- Beige ink
- Black Ink
- Pink Ink
- Green Ink
- White ink
- Hydrorepellent ink
- Reactive Ink
- Luster Ink
- Matte ink
- Glossy Ink
- Metallic Ink
- Glue ink

ENCRES NUMÉRIQUES

CCB COLORS propose une large gamme de couleurs et d'encres de haute qualité et hautes performances, adaptées à tous les types de têtes d'impression et conçues pour répondre à tous les besoins. Nos différentes encres de technologie ECO présentent une solution avancée dans la technologie numérique, offrant des couleurs plus intenses et des effets numériques qui donnent à la céramique une valeur supplémentaire dans la conception..

- Encre bleue
- Encre cyan
- Encre brune
- Encre jaune
- Encre beige
- Encre noire
- Encre mate
- Encre brillante
- Encre rose
- Encre verte
- Encre blanche
- Encre hydrofuge
- Encre réactive
- Encre lustrée
- Encre métallique
- Encre de colle

	REFERENCE	TINTA DIGITAL	DIGITAL INK
	TLS-1003	NEGRO	BLACK
	TLS-1004	NEGRO PORCELANICO	PORCELAIN BLACK
	TLS-1005	NEGRO	BLACK
	TLS-1006	NEGRO	BLACK
	TLS-1007	NEGRO	BLACK
	TLS-2005	OCRE	OCRE
	TLS-2006	AMARILLO LIMON	LEMMON YELLOW
	TLS-2007	GOLDEN YELLOW	GOLDEN YELLOW
	TLS-2008	OCRE	OCRE
	TLS-2013	AMARILLO	YELLOW
	TLS-2014	AMARILLO CADMIO	CADMIUM YELLOW
	TLS-3003	BEIGE	BEIGE
	TLS-3005	NARANJA	ORANGE
	TLS-3006	AMBAR	AMBER
	TLS-4003	AZUL	BLUE
	TLS-4006	CYAN	CYAN
	TLS-4007	AZUL	BLUE
	TLS-4009	CYAN	CYAN
	TLS-5001	VERDE	GREEN
	TLS-5002	TURQUESA	TURQUOISE
	TLS-7003	ROSA	PINK
	TLS-8003	MARRON	BROWM
	TLS-9001	ROJO SELENIO	SELENIUM RED
	TLS-0012	BLANCA	WHITE
	TLS-0013	REACTIVA	REACTIVE
	TLS-0014	MATE	MATT
	TLS-0015	LUSTRE	LUSTER
	TLS-0016	BRILLO	GLOSSY
	TLS-0017	TEXTURA	TEXTURA ENGRAVE
	TLS-0020	CLEANER	CLEANER
	TLS-0021	METALIZADA	METALLICA
	TLS-0022	CAMALEONTE	REACTIVE
	TLS-0023	MATE	MATT
	TLS-0024	MATE PROTECCION	MATT PROTECTION
	TLS-0025	BRILLO	GLOSSY
	TLS-0026	TEXTURA	TEXTURE ENGRAVE
	TLS-0031	LUSTRE	LUSTER
	TLS-0028	MONOESMALTE	WHITE MATT
	TLS-0034	REACTIVA	REACTIVE
	TLS-0035	COLA	GLUE





METALLIC EFFECT



TEXTURE ENGRAVE EFFECT



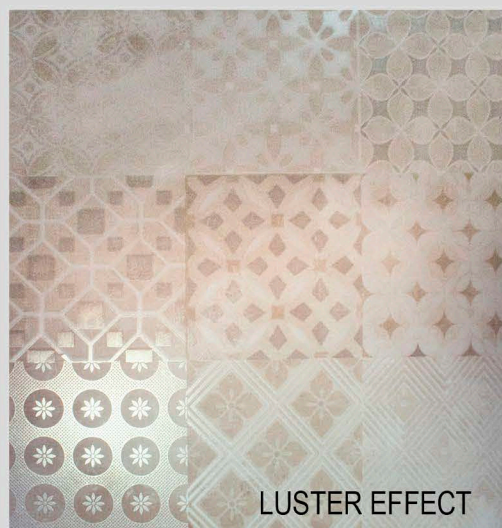
MATT EFFECT



REACTIVE EFFECT



GLOSSY EFFECT



LUSTER EFFECT



TECHNICAL DATA SHEET

CLEANER TLS-0020

Cleaner for CCB printing inks

Chemical basis:

Solvents

Characteristics:

Solubility: water-insoluble
Density: approx. 0.85 g/cm³
Viscosity: approx. 4 mPas

Shelf-life / Packaging:

12 months under proper storage conditions
Containers of 4 kg

Application:

TLS-0020 is an efficient solvent for cleaning digital printing heads, tubes and other machine parts. It is especially suitable, when CCB printing inks are applied.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

METALLIC INK TLS-0021

Metallic ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.22 g/cm ³
Viscosity (25 °C):	approx. 25 mPas
(40 °C):	approx. 17 mPas
Solids content:	approx. 25-50 %
Chemical composition:	Iron(III) phosphate

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0021 is a metallic ink for tile decoration with digital printing technology. In addition to the broad colour spectrum when applying standard colour inks, TLS-0021 allows the user to achieve additional effects relating to the design used.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0021 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

REACTIVE INK TLS-0022

Reactive ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.079 g/cm ³
Viscosity (25 °C):	approx. 25 mPas
(40 °C):	approx. 17 mPas
Solids content:	approx. 25-50 %

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0022 is a reactive ink for tile decoration with digital printing technology. Due to the reactivity of the printing frit a distinct in-glaze-behaviour is possible. Depending on the glaze system used. TLS-0022 allows the user to obtain further effects to the applied designs in addition to the bright colour spectrum of standard printing colours.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0022 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

MATT INK TLS-0023

Matt ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.21 g/cm ³
Viscosity (25 °C):	approx. 30 mPas
(40 °C):	approx. 20 mPas
Solids content:	approx. 25-50 %
Chemical composition:	Al ₂ O ₃

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0023 is a matt ink for tile decoration with digital printing technology. Owing to the low reactivity of the printing ink, a matting of the base glaze takes place. Even at low application thicknesses it is possible to achieve good optical effects.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0023 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

MATT PROTECTION INK TLS-0024

Matt protection ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.24 g/cm ³
Viscosity (25 °C):	approx. 23 mPas
(45 °C):	approx. 16 mPas
Solids content:	approx. 25-50%
Chemical composition:	SiO ₂ – CaO - Al ₂ O ₃ – B ₂ O ₃ – K ₂ O ₃ – ZnO - MgO

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0024 is a matt protection ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0024 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

GLOSSY INK TLS-0025

Glossy ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.24 g/cm ³
Viscosity (25 °C):	approx. 30 mPas
(45 °C):	approx. 17 mPas
Solids content:	approx. 25-50%
Chemical composition:	SiO ₂ – CaO - Al ₂ O ₃ – B ₂ O ₃ – Na ₂ O ₃ – K ₂ O ₃ – ZnO - SrO

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0025 is a glossy ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0025 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

TEXTURE ENGRAVE INK TLS-0026

Texture engrave ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.24 g/cm ³
Viscosity (25 °C):	approx. 23 mPas
(45 °C):	approx. 17 mPas
Solids content:	approx. 25-50%
Chemical composition:	SiO ₂ – CaO - Al ₂ O ₃ – B ₂ O ₃ – Na ₂ O ₃ – K ₂ O ₃ – ZnO

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0026 is a glossy effect printing ink for the decoration by digital printing technology. At the same time, this printing ink has water-repellent properties when used with aqueous glaze system. Glazes applied after the digital printing process create a detailed relief owing to the water-repellent effect of this printing ink. At the same time, the glossy properties of the printing ink provide additional effects if combined with mat glazes. Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0026 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

WHITE INK TLS-0028

White ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.29 g/cm ³
Viscosity (25 °C):	approx. 21 mPas
(45 °C):	approx. 14 mPas
Solids content:	approx. 25-50%
Chemical composition:	SiO ₂ – CaO - Al ₂ O ₃ – B ₂ O ₃ – ZrO ₂ – ZnO

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0028 is a white ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance. This ink is particularly suitable for complex designs and dark flat colours.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0028 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

LUSTER INK TLS-0031

Luster ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility:	water-insoluble
Density (25 °C):	approx. 1.22 g/cm ³
Viscosity (25 °C):	approx. 26 mPas
(45 °C):	approx. 17 mPas
Solids content:	approx. 25-50%
Chemical composition:	SiO ₂ – Al ₂ O ₃ – CeO ₂ – Na ₂ O – Li ₂ O – ZrO ₂ -MgO

Shelf-life / Packaging:

8 months from date of filling

Containers of 5 Kg

Application:

TLS-0031 is a luster ink for tile decoration with digital printing technology. The development of the luster effect depends on the application thickness of TLS-0031. In addition to the broad colour spectrum when applying standard colour inks, TLS-0031 allows the user to achieve additional effects relating to the design used.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-0031 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions, they can serve only as guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.

TLS-0035

DIGITAL GLUE

Chemical basis:

Polymer preparation in solvents.

Chemical and physical specification:

Density: approx. 0.98 g/cm³;
Viscosity (25 °C): approx. 25 mPas

Shelf-life / Packaging:

If properly stored, it keeps for at least 6 months.
Suggested storage temperature: from 5 ° C to 35 ° C

Properties and applications:

TLS-0035 is a special inkjet adhesive with a strong cohesive power for tile decoration. It is an opalescent solution containing a melting agent for ceramic use.

It contains polymers with cohesive power to bind fine powders or fine grains in the tiles, which allows the decoration of all possible designs and effects desired by the digital printing.

In general, **TLS-0035** is incorporated into the production line as follows:

1. Engobe / glaze application;
2. If necessary, apply primers
3. Inkjet colour decoration + adding **TLS-0035** on the last one(s) two bars;
4. Immediately after digital printing machine (1-2 m distance), application of fine grains or fine powder with standard machine for the application of grains;
5. Suction or blowing to remove the excessive material.

The above results have been obtained from trial in our laboratory and plant
In the light of changing conditions, they can serve only a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties

Inkjet adhesive applied with inkjet heads can be rapidly absorbed by the tile backing, depending on the production conditions; To achieve cohesive effect of dust or sand, we recommend increasing the amount of Inkjet agent to reach wet under the application of sand or dust.

To increase the amount of adhesive as needed, we recommend the following steps:

- Use inkjet heads with high ink discharge;
- If possible, use two application bars (two overlapping applications);
- Use possibly 100% coverage (bitmap) always in binary form;
- Adjust the distance to the powder application unit to optimize the cohesive performance.

After the application of grains or powder, it is possible to apply the glaze by spraying or double disc.

GRAIN OR POWDER PARAMETERS:

Composition: all compositions are allowed

Humidity: <1%.

Size: D90 <0.3 mm, D90 optimum <0.2 mm

The washing and handling in the digital printing machine is the same as with our inks.



TECHNICAL DATA SHEET

BLACK INK TLS-1003

Black ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.10 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 14 mPas
Solids content: approx. 28 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-1003 is a black ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, the TLS-1003 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

BLACK PORCELAIN INK TLS-1004

Black ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.10 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 14 mPas
Solids content: approx. 28 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-1004 is a black ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, the TLS-1004 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

YELLOW INK TLS-2006

Yellow ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.34 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 15 mPas
Solids content: approx. 45 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-2006 is a yellow ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-2006 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

GOLDEN YELLOW INK TLS-2007

Yellow ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.34 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 15 mPas
Solids content: approx. 45 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-2007 is a yellow ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-2007 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

BEIGE INK - TLS-3003

Beige ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.32 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 15 mPas
Solids content: approx. 43 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

Beige ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

BLUE INK TLS-4003

Blue ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.10 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 14 mPas
Solids content: approx. 28 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-4003 is a blue ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-4003 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

CYAN INK TLS-4006

Cyan ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (25 °C): approx. 1.17 g/cm³
Viscosity (25 °C): approx. 25 mPas
(45 °C): approx. 14 mPas
Solids content: approx. 40 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-4006 is a cyan ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-4006 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

GREEN INK TLS-5001

Green ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.34 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 15 mPas
Solids content: approx. 45 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-5001 is a green ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-5001 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

PINK INK TLS-7003

Pink ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.30 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 15 mPas
Solids content: approx. 45 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-7003 is a pink ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, the TLS-7003 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.



TECHNICAL DATA SHEET

BROWN INK TLS-8003

Redbrown ink for the digital printing technology

Chemical basis:

Polymers and inorganic pigments in solvents

Characteristics:

Solubility: water-insoluble
Density (20 °C): approx. 1.39 g/cm³
Viscosity (20 °C): approx. 30 mPas
(45 °C): approx. 15 mPas
Solids content: approx. 46 %

Shelf-life / Packaging:

8 months from date of filling
Containers of 5 kg

Application:

TLS-8003 is a red-brown ink for tile decoration with digital printing technology. Its stable colour and optical density allow the user to increase the colour spectrum, intensity, productivity and the design performance.

Suitable for printing at temperatures below 45 °C.

Additionally, when required, TLS-8003 can also be adjusted for use at higher printing temperatures according to the technical requirements of the production equipment.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.