# **Service-Information 07**

### Physical parameters of inks

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Dear customers.

"...inks of finest quality" is OCP's slogan since foundation — but how to prove that our inks are of finest quality? Giving measurement figures can be an objective way to prove quality, if high qualified equipment is used, only. OCP uses only computer-controlled measurement equipment to measure the following physical parameters of every ink batch produced. This data is presented to our customers in our unique "Batch Certificates" which are available upon request for every batch of ink.

### **Surface Tension / Interfacial Tension**

This parameter influences to following print out properties:

- Sharpness
- Penetration of ink into print media
- Primary diffusion
- Color gamut
- Ink flow inside an ink-jet cartridge

#### Viscosity

- Influences sharpness and also penetration of the ink into print media
- Controls ink flow inside the cartridge, in combination with surface tension
- Can cause ink starvation (if viscosity is much too high, ink flow can be blocked completely)

## pH value

- Due to too low (acid) or too high (alkali) pH, ink can cause corrosion
- For perfect function and stability, the ink's pH value must be adapted to the dye's pH

#### Conductivity

This parameter is influenced by:

- ♦ Salts (ions)
- Organic components with ionic properties (dyes)

The conductivity values of OCP inks represent ionic dye properties, only, as the ink water is purified at a conductivity in between 0,1-0,5 µS and all other raw materials have a purity better than 99,5%.

#### **Density**

This parameter corresponds with the arithmetic mean of densities of all substances inside any ink formulation considering their proportions.

All these parameters can be measured in different ways with different type of equipment. OCP provides internationally standardized data as well as data in dimensions which are in some countries still used dominantly.

For details about all available dimensions, please look into the checkbox above.

Yours sincerely,

**OCP GmbH** 

Dimensions:

Surface Tension mN/m (international standard) **dyn/cm** (previous dimension)

Kinematic Viscosity mm<sup>2</sup> / sec (international standard)

**cSt** (previous dimension)

mPa-sec (international standard) Dynamic Viscosity **cP** (previous dimension)

рΗ without dimension

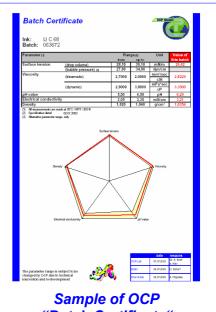
Electr. Conductivity mS / cm (international standard)

Density / g / cm³ (international standard) Specific Gravity

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...inks of finest quality!



"Batch Certificate"