



General information

Covercoats are organic film-forming solutions of thermoplastic polymers which are used to produce ceramic transfers (decals).

In the last step of printing ceramic silk-screen prints and offset prints they are used to over film of the complete colour surface on water-slide off or heat-release decals.

This coating film (film of varnish) applied by silk-screen processing is responsible for the transfer of the ceramic decals onto the surface of the objects to be decorated.

The covercoats (lacquers) may be processed by manual silk-screen printing as well as by automatic silk-screen printing.

Nearly always coarse meshed silk-screens - such as polyester 24-120 or 32-120 or steel 100 – 140 mesh - are used, in order to gain a sufficiently thick film covering.

The drying period is depending on the ambient air conditions.

When using the common continuous driers the drying periods amount between 30 and 60 minutes.

To avoid a “flowing down” of the covercoat when dried vertically it is recommended to use thixotropic covercoats.

The dry thickness of the film should be about 20 – 25 microns to ensure a sufficient stability and elasticity of the decal during the transfer. Depending on the type of polymer and content of plasticizer the films can be more or less elastic. If the temperature during the application is too low, a warming of the soaking water is recommended.

If a specially elastic film is desired, this can be achieved by addition of 1-3 % of special plasticizer into the covercoat or into the soaking water.

During storage of the transfers it is normally necessary to use an interlaying paper in order to prevent the prints from sticking together. Only when using special antiblocking covercoats and at favorable storing conditions the interlaying paper may be omitted. At any case a check in advance should be undertaken, because the air conditions, temperature and the way of storage play an important role.

Covercoats are offered in standard Yellow.

If desired they are also, on special order, available in: green, blue, red, light pink or colourless.

All the covercoats are suitable for transfers on glass and on porcelain and for all ranges of standard ceramic colours and precious metal pastes.

Products:

| Covercoat | Viskosity AZ (sec.) 6 mm DIN | Solid content | Thinner | Comment |
|-----------------|------------------------------|---------------|---------|---|
| OPL-0601 | 100 - 110 | 42% | TH-0430 | Elastic Standard Covercoat for manual printing and Cylinder printing machines |
| OPL-0601 / thix | | 42% | TH-0430 | Thixotropic Standard Covercoat |

Viscosity measured at 20°C.



Technical Color Service

Covercoats for Ceramic Decals



Firing

Ceramic Decals can be fired at temperatures between 480 to 1400 °C.

The firing temperature has to be adjusted depending on the items to be decorated and the type of kiln.

In the temperature range up to about 450 ° C – in which organic medias and covercoats decompose – the kiln should exhaust very effective. A fast increase of temperature, short peak time and a slow cooling down is advantageous.

Thinner

The addition of thinner to covercoats is only recommended, when the product has a very high viscosity caused by evaporation of solvents. Too much thinning can cause faulty printing and firing results. A suitable thinner is our thinner 0430.

Storage

Covercoats should be stored in closed containers in cool and dry air conditions.

Opened vessels have to be closed again immediately after take-off.

Rest quantities should not be poured back into the original receptacle.

Covercoats are durable for at least two years, provided that they are stored in closed steels cans.

Forms of Delivery

1 kg-, 5 kg-, 10 kg-, 25 kg- and 170 kg-packings.

Notice

Please note that when viewed on different monitors, colors will show slight to dramatic color differences unless the given monitor has been calibrated.

The information provided herein is correct to the best of our knowledge. This description does not release the users from examinations and tests of their own because of uncountable possible influences, when using and applying the products in connection with every other material being involved in the production. It can not be deduced a legally obliged assurance for specific characteristics or for the aptitude of a definite usage purpose. The receiver of our products has to observe by his own responsibility probable protecting rights as well as existing laws, rules and regulations. No liability for any errors, facts or opinions is accepted. You should satisfy yourself before applying any of the information contained herein to your particular circumstances. No responsibility for any loss as a result of any person placing reliance on any material contained herein can be accepted by Technical Color Service.

Technical Color Service - Hedikhuizerweg 33 - 5222 BC 's-Hertogenbosch - The Netherlands
Tel. +31 (653) 471 811