Technical Product Information

HYDRO PELLET NEU series

Article no.:	Product name:
024076..	HYDRO PELLET NEU 1000 Silber
024074..	HYDRO PELLET NEU 1300 Silber
024075..	HYDRO PELLET NEU 1700 Silber

Artcle no.:	Product name:
024079..	HYDRO PELLET NEU 1800 Silber
024071..	HYDRO PELLET NEU 2600 Silber
024072..	HYDRO PELLET NEU 3500 Silber
024073..	HYDRO PELLET NEU 5000 Silber

Product description:

HYDRO PELLET NEU series represents a portfolio of non-leafing aluminium pigment in pellet form.

- Clean handling, easy dosage and easy dispersion with dust free pellets.
- The stabilizing technology provides minimal gassing with highest brilliance.
- This products are free of water formulated, therefor HYDRO PELLETS NEU can be airfreighted
- Free of solvent, biocides and APEO

These products have not been especially developed for the formulation of inks for the production of packaging for food, beverages and tobacco. Therefore suitability for this application has to be tested before commercial use (e.g. via migration testing or risk analysis) and cannot be guaranteed by ECKART.

Application:

HYDRO PELLETS NEU are suitable to formulate water based gravure, flexo and screen printing inks.

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:

HYDRO PELLET NEU series are based on special stabilizing and wetting agent technologies. Thus allows the simple incorporation into various aqueous binder systems. In each individual case, special tests are necessary because of the multiple factors influence the gassing stability and the final result.

Rub resistance and lamination properties:

The stabilizing additives are hydrophobic. Therefore the HYDRO PELLET NEU products show more or less leafing behaviour, independent from the pigment.

These products are suitable to formulate rub resistance and polychromatic (e.g. imitation gold) inks.

Additional product properties:

HYDRO PELLET NEU	Pigment content (approx.)	Pigment size D_{50} (approx.)	Pigment type	Recommended application*1)
1000	80 %	10 µm	Cornflake	Flexo
1300	80 %	13 µm	Silver dollar	Gravure
1700	80 %	17 µm	Silver dollar	Gravure
1800	80 %	18 µm	Cornflake	Gravure
2600	80 %	26 µm	Cornflake	Sleeve
3500	80 %	34 µm	Silver dollar	Sleeve
5000	80 %	54 µm	Silver dollar	Sleeve

*1) *Depending machine configuration, the product can also be used in other applications*

For technical specifications please refer to the technical data sheet.

Handling:

To achieve the best possible wetting of the pigment surface and the best possible pigment dispersion, it is recommended to first lightly stir or homogenize HYDRO PELLETS NEU for several minutes in water. The binder and other formula components can then be added.

The entire mixture is then dispersed accordingly. To achieve optimal results, careful dispersion of the pigments is necessary. The use of suitable mixing or dispersion aggregates is, therefore, highly recommended. Depending on the viscosity of the product, a vacuum butterfly mixer or a vacuum disk dissolver can be used. Ideally, the ratio of disk to the inner binder diameter should be 1:2.

By selecting the suitable mixing aggregate, an optimal mixing output is reached without excessive shear or a disproportionate rise in temperature.

However, if this is not ensured, it can lead to the loss of pigment orientation properties or even to pigment damage and, consequently, to impaired reflection properties and thus to decreased brilliance. Too little shear energy can also lead to impairment of the optical effect due to poor pigment orientation.

Metallic inks tend to 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 the Safety Data sheet of HYDRO PELLET NEU series for further handling guidelines.

Guiding formulations:

These suggested starting formulations are examples intended for general guidance only and do not represent the optimum result for any specific application.

Rub resistant flexo printing ink:

HYDRO PELLET NEU 1000	20,0%
ROTOSTAR Aqua ME 10-0001	63,5%
Byk 024(1)	1,0%
Ceraflour 991(1)	0,5%
Wasser	15,0%
Σ	100,0%

Add HYDRO PELLET NEU to water, let soak for at least half an hour and then mix well. Add binder and further components of the formulation and disperse. Adjust viscosity.
Print viscosity for flexo: 25 – 35 s DIN 4 cup. .

Imitation gold ink for gravure printing:

HYDRO PELLET NEU 1300	16,0%
Zinpol 132(2)	63,8%
Byk 024(1)	1,0%
Ceraflour 991(1)	0,2%
Wasser	9,0%
Sunsperse yellow YHD 6005(3)	7,0%
Sunsperse orange OHD 7019(3)	3,0%
Σ	100,0%

Add HYDRO PELLET NEU aqua to water, let soak for at least half an hour and then mix well. Add binder and further components of the formulation and disperse. Adjust viscosity.
Print viscosity for gravure: 15 – 20 s DIN 4 cup.

Suppliers:
(1) BYK Additives & Instruments
(2) Worlee/Noveon
(3) Sun Chemical

Storage and transportation:

All HYDRO PELLET NEU types should be stored at temperatures below 25°C. High temperatures as well as very low temperatures should be avoided as these conditions could damage the product.

Shelf life: 12 months

For further information or samples, please contact:

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