



Combination drier with low cobalt content particularly suited to light-colored paints and varnishes

Description

The combination drier **Octa-Soligen® 141 Z** is a product developed by our laboratories which combines a large application field with a strong decrease of discoloration caused by cobalt.

With **Octa-Soligen® 141 Z** the formulators get a lead-free drier system which allows good drying characteristics in medium and long-oil alkyd resins.

Characteristic Data

Appearance	Clear, middle-viscous, violet liquid	
Metal content	Ca: 1.40 - 1.60 % Co: 1.40 - 1.60 % Zn: 0.80 - 0.90 % Zr: 10.50 - 11.10 % Total: 14.10 - 15.20 %	DIN 55901 DIN 55901 DIN 55901 DIN 55901
Non-volatile content	60 - 74 %	ISO 3251 (2g, 3h, 105 °C)
Viscosity	Max. 500 mPa·s	ISO 3219 (A) (20 °C)
Density	1.040 - 1.080 g/cm ³	DIN 51757 (20 °C)
Solvent	White-spirit containing max. 1 % aromatics	

Properties

Octa-Soligen® 141 Z is a multi metal drier giving high reactivity, which results of the synergy effects developed by the different metals in the mixture in particular proportions. This allows low dosage and thus a homogeneous and even drying and improves at the same time the hardness of the paint film.

The even drying results of the low dosage of cobalt allowing a progressive surface drying of the paint film. This effect which is essential for the oxidations within the paint film allows at the same time the evaporation of the solvents.

Dosage

The drier **Octa-Soligen® 141 Z** is a particularly stable product. It is used in formations based on medium and long-oil resins.

In the case of formulations based on long-oil resins containing drying retarding pigments or pigments causing a loss of drying power (e.g. carbon black or toluidine red) we recommend to add Octa-Soligen® Calcium 10 to the mill base in order to stabilize the drying power.

The particular composition of **Octa-Soligen® 141 Z** carries along a modification of the usual calculation methods. In fact, with this new drier it isn't necessary anymore to maintain the same quantity of cobalt when passing to lead-free systems.



Many tests have allowed determining a reliable and extrapolatable method, which ever resin may be utilized.

Medium oil resins (40 - 55 %)

We recommended, for this kind of formulations, the introduction of between 2 and 4 g of **Octa-Soligen® 141 Z** as supplied per 100 g of resin solids.

Example: resin of 50 % introduced to 60 % into the formulation:

Solids content: $30 \% \times 0.04 = 1.2 \%$ of **Octa-Soligen® 141 Z**, related to the total formulation.

Long-oil resins (55 - 75 %)

We recommend the introduction of between 4 and 6 g of **Octa-Soligen® 141 Z** as supplied per 100 g of resin solids.

Example: resin of 65 % introduced to 50 % into the formulation:

Solids content: $32.5 \% \times 0.06 = 1.95 \%$ of **Octa-Soligen® 141 Z**, related to the total formulation.

If there are strong proportions of drier-adsorbing pigments (due to their high specific surfaces) and/or resins with an oil-length superior to 70 % in this kind of formulations it may become necessary to add Octa-Soligen® Calcium 10 (see separate data sheet).

In this case the recommended dosage of Octa-Soligen® Calcium 10 is about 50% related to the dosage of **Octa-Soligen® 141 Z**.

Storage

Protect from the effects of weathering and store at temperatures below 50 °C.

Once opened, containers should be resealed immediately after each removal of the product.

Safety

Please refer to our safety data sheet for information relating to product safety.

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