

## Technical Leaflet

# WorléeKyd C 743 hs

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W'Kyd C 743 hs is an extremely low viscous short oil and non-drying alkyd resin for the manufacture of high solids, oven cured primers, fillers and top coats.

### Technical Data:

Oil content	approx. 12%
Content of phthalic anhydride	approx. 40%
Non volatile content, 1h/125 °C, DIN EN ISO 3251	80% ± 2
Colour, Gardner, 60% in aromat. HC 155 - 180, DIN ISO 4630	max. 10
Acid value, on solids, DIN EN ISO 3682	max. 20
Flow time, 20 °C, 60% in aromat. HC 155 - 180, DIN 5321-4	40 - 60 s
<b>Delivery form</b>	80% in aromat. HC 155 - 180

### Compatibility:

W'Kyd C 743 hs is compatible with some short oil non-drying alkyds, such as W'Kyd D 233 and SM 400. With the most usual butylated or iso-butylated urea and melamine formaldehyde resins as well as with most methylated melamine resins, e.g. Dynomin MM-100, Cymel 325, Cymel 303 (Dyno Cyanamid) W'Kyd C 743 hs is also compatible.

### Solubility:

W'Kyd C 743 hs is soluble in aromatic hydrocarbons, esters, ketones, glycol ethers and higher alcohols. In aliphatic and terpenic hydrocarbons W'Kyd C 743 hs is insoluble.

### Application and Properties:

Although W'Kyd C 743 hs is very low viscous, it is a high reactive stoving resin. Optimal film properties can be achieved at stoving conditions 10-30 min. at 160 - 130 °C, normally without addition of any catalyst. The alkyd-amino resin ratio by using high reactive methylated melamine resins (e.g. Cymel 325) is 80:20. An addition of catalyst is not necessary. By using butylated or iso-butylated melamine resin the optimum ratio is between 7:3 and 3:1. The addition of 0.4 - 1.0% of catalyst (e.g. W'Add 2030), calculated on total formulation is recommended.

Due to the high yellowing resistance of W'Kyd C 743 hs it is possible to cure at temperatures up to 160 °C by reducing the curing time.

High solids stoving paints based on W'Kyd C 743 hs in conjunction with methylated melamine resins such as Cymel 325 exhibit a high degree of gloss, good film build and mechanical properties. Due to the excellent adhesion W'Kyd C 743 hs can be used for one coat finishes.

In order to improve flow and gloss, the addition of 0.1 - 0.2% W'Add 100 is recommended. The addition of silicone based additives should be avoided because cratering can be the result.

The choice of the titanium dioxide pigment is of prime importance in 1-component-high-solids systems. It has a certain degree of influence on viscosity and can stability but it will be most important as far as gloss, hardness and conditions of cure are concerned. The overall best performance in a 1-component-high-solids stoving paint based on W'Kyd C 743 hs is given by Tioxide R-CR 3 (Tioxide International).