

Technical Data Sheet

Solutions for Decoration

80 4085 - Thinning Medium

Application	<p>Thinning medium 80 4085 has been developed to achieve optimum processing viscosity of the printing pastes based on the printing medium 80 4084. 80 4085 also displays very good dispersion properties for making intensively colored pastes with a high proportion of color. Color powder and printing medium are pasted at 70-80 °C using a heated three-roll mill.</p> <p>At temperatures above 400 °C 80 4085 burns without leaving any residues.</p>
Printing properties	<p>80 4085 is only for adjusting the viscosity of printing pastes based on 80 4084. Color pastes based solely on the thinning medium 80 4085 are not suitable for printing.</p> <p>At temperatures above 400 °C 80 4085 burns without leaving any residues.</p>
Miscibility	<p>Included in the pad printing medium 80 4085 group are:</p> <p>Thinning medium 80 4084 (430 mPa.s at 1250 1/s REL- viscometer / 65 °C)</p> <p>Both products are intermixable. Practice has shown that the correct processing viscosity can always be achieved by adding up to a maximum of 20 % thinning medium 80 4085 to 80 4084.</p> <p>The following method of procedure is recommended for colors or color mixtures, for which no optimum pasting ratio and no optimum printing paste viscosity have been determined:</p> <p>a.) Basic pasting with printing medium 80 4084 at a ratio of 100 : 50. b.) Basic pasting with thinning medium 80 4085 also at a ratio of 100 : 50 Printing is now begun with paste a.). During processing the doctor blade should scrape the printing plate clean, without leaving any residue (visible). If the paste cannot be scraped off cleanly, 10 % of paste b.) is added, to attempt to improve the knifing qualities of printing paste a.).</p> <p>It might be necessary to add a further 10 % of thinning paste b.). As a rule, however, the optimum paste viscosity is then achieved.</p>
Application errors	<p>The best processing temperature for the pastes is around 65-70 °C. Both the ambient temperature and that of the object being printed on should be between 20-22 °C, in order to ensure a smooth operational procedure. Ideally these conditions are achieved by having controlled air conditioning. If the ambient temperature is above that recommended, the printing quality may be impaired, causing the details of the print to be less sharply defined. If the temperature is lower than recommended, the color is less intense and poor color release on to the object being decorated may occur.</p>
Storage	<p>80 4085 should be stored in a dry place at room temperature (15-25 °C). At temperatures above 30°C the medium can become gluey due to softening.</p> <p>When this storage recommendation is observed, the minimum shelf life in unopened original drums is 24 month.</p>
Environment	<p>Waste material treatment, environmental health and safety protection has to follow the local regulations and legislation.</p>

Field of application	on bone china, vitro or earthenware bisque surfaces
Processing	pad print made off nylograph or metal engraving plate
Appearance	yellowish, waxlike compound
Composition	waxes, polymers and auxiliary materials
Viscosity at 23°C [mPa*s]	1 at 50 1/s ; 1 at 200 1/s
Degree of thixotropy	none
Consistency	thermoplastic
Density at 20 °C [g/cm³]	0,98
Non-Volatile parts (nvp) [%]	100
Flash point according to ISO 3680 [°C]	100
Recommended screen material	depending on color and design
Recommended pasting ratio	- -
Drying	by means of solidification
Drying figures TZ according to Mettler	TZ 10: ; TZ 100: cannot be measured
Recommended working temp. [°C]	20 - 25
Recommended rel. humidity [%]	55 - 60
Recommended Covercoats	- -
Thinner	- -
Cleaner	80 890

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