

# Technical Data Sheet

Solutions for Decoration

## 80 3035 - Screen Printing Medium

<b>Application</b>	80 3035 can be used for applying decorations to porcelain, ceramics and enamelware. 80 3035 was specially designed for being used with lead-free colors. The viscosity reduction power of 80 3035 is outstanding. 80 3035 is used in conjunction with the standard media 80 820 or 80 810, depending on the degree of thixotropy desired. 80 3035 may also be used in small amounts (2% based on paste) to reduce undesired thixotropy that is due to humid color powder or excessive printing room humidity. 80 3035 can be used for applying decorations to porcelain, ceramics and enamelware.
<b>Printing properties</b>	80 3035 is a flowing printing medium that displays very good printing properties for surfaces and lines with good reproduction of detail. Mixtures with 80 820 or 80 810 impart the desired thixotropy where necessary. The addition is normally done in the paste preparation. Color, medium (e.g., 80 820) and the auxiliary 80 3035 are homogenized and then dispersed. Here is a typical composition: Color 100 parts to 80 820 50 parts to 80 3035 10 parts The addition is approx. 15% to the medium.
<b>Miscibility</b>	Included in the screen printing medium 80 3035 group are: 80 856 flowing, 80 820 low thixotropy, 80 810 high thixotropy As all the printing media are based on redissolvable (reversible) resins, there is the risk, particularly with the flowing printing media 80 3035 of ceramic decals produced with these media becoming dissolved to such an extent when covercoated that the inks on vertical surfaces run together with the covercoat. The risk increases when the pasting ratios fall below a CPVC of 53%. All the media in this group can be mixed with one another, as required. To increase the viscosity and achieve a lower thixotropy, thus preventing the risk of running, mix flowing media with the thixotropic printing medium 80 820.
<b>Application errors</b>	80 3035 allows extremely high adaptation ratios and thus a very low media content in the paste. For this reason, we recommend testing the medium 80 3035 in combination with the screen printing media for the respective application to avoid pinholing and other defects related to lack of decal flexibility. When high proportions of 80 3035 are used with the above-mentioned compounds, Standard media, the paper adhesion is reduced and the stickiness of the decors can increase. 80 3035 should not be used as a single medium for pasting ceramic pastes.
<b>Storage</b>	80 3035 should be stored in the drums in which it was originally supplied by FERRO in a dry place at room temperature (15-25°C). Always seal opened drums carefully as the composition of the product changes when solvents evaporate from open drums. When this storage recommendation is observed, the minimum shelf life in unopened original drums is 2 years.
<b>Environment</b>	Waste material treatment, environmental health and safety protection has to follow the local regulations and legislation.

<b>Field of application</b>	porcelain, ceramic, enameledware
<b>Processing</b>	with automatic and semi-automatic screen printing equipment
<b>Appearance</b>	transparent liquid
<b>Composition</b>	polyacrylates, plasticizer, solvent
<b>Viscosity at 23°C [mPa*s]</b>	200 at 50 1/s ; 200 at 200 1/s
<b>Degree of thixotropy</b>	none
<b>Consistency</b>	flowing
<b>Density at 20 °C [g/cm³]</b>	0,98
<b>Non-Volatile parts (nvp) [%]</b>	38
<b>Flash point according to ISO 3680 [°C]</b>	79
<b>Recommended screen material</b>	depending on color and design
<b>Recommended pasting ratio</b>	depending on the density of the used color
<b>Drying</b>	by means of solvent evaporation
<b>Drying figures TZ according to Mettler</b>	TZ 10: ; TZ 100: unapplicable
<b>Recommended working temp. [°C]</b>	20 - 25
<b>Recommended rel. humidity [%]</b>	55 - 60
<b>Recommended Covercoats</b>	can be overprinted with all thixotropic FERRO covercoats
<b>Thinner</b>	--
<b>Cleaner</b>	80 452

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