

# Technical Data Sheet

Solutions for Decoration

## 80 2018 - Protective Coating

<b>Application</b>	<p>Uncontrollable firing defects such as pinholes, pitting and blistering etc. often occur in the case of decors with thick layers of ink, e.g. embossed decors. In order to prevent these defects, the protective coating 80 2018 is printed on to the printed color decor before covercoating.</p> <p>In the heat-release process 80 2018 is suitable for improving the adhesive effect of heat-activated adhesives (80 2023) with the reel-to-reel method due to its special composition. In this case, a thin layer of 80 2018 is printed on the decor first, before the adhesive coat (80 2023). Due to its good combustibility and depolymerization, it can also be used as a downcoat for the HR process.</p>
<b>Printing Properties</b>	<p>80 2018 can be printed at high speeds, without cobwebbing or blistering occurring. 80 2018 dries quickly; this means that the printed sheets can continue to be processed as soon as they leave the wicket dryer.</p>
<b>Film characteristics</b>	<p>As 80 2018 is only used as a thin protective coating, flexibility and extensibility are not significant in this case.</p> <p>The recommended dry film thickness should be some 5-7 µm.</p>
<b>Application errors</b>	<p>If the recommended processing temperature of 20-25 °C is not observed, i.e. the temperature is lower, the levelling properties may be poor when printing, the film thickness may be insufficient and there may be pinholes in the dry film.</p>
<b>Storage</b>	<p>80 2018 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.</p> <p>When this storage recommendation is observed, the minimum shelf life in unopened original drums is 12 month.</p>
<b>Environment</b>	<p>Waste material treatment, environmental health and safety protection has to follow the local regulations and legislation.</p>

<b>Field of application</b>	porcelain, ceramics
<b>Processing</b>	with automatic and semi-automatic screen printing equipment
<b>Appearance</b>	opaque liquid
<b>Composition</b>	cellulose derivatives; plasticizer; solvents
<b>Viscosity at 23°C [mPa*s]</b>	3400 at 50 1/s ; 2900 at 200 1/s
<b>Degree of thixotropy</b>	none
<b>Consistency</b>	thixotropic
<b>Density at 20°C [g/cm<sup>3</sup>]</b>	0,94
<b>Non-Volatile parts (nvp) [%]</b>	14
<b>Flash point according ISO 3680 [°C]</b>	33
<b>Recommended screen material</b>	PET: 180-31 to --
<b>Blocking stability</b>	tack-free
<b>Minimum dry film thickness [µm]</b>	3-7
<b>Drying figures TZ according to Mettler</b>	TZ 10: ; TZ 100: not measured
<b>Recommended working temp. [°C]</b>	20 - 25
<b>Recommended rel. humidity [%]</b>	55 - 60
<b>Thinner</b>	--
<b>Cleaner</b>	80 452

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