

BLUESIL™ FLD 604V50**Transformer Fluid**

Description	BLUESIL™ FLD 604V50 is a 100% dimethyl polysiloxane fluid, which has been processed and controlled to meet electrical specifications. BLUESIL™ FLD 604V50 exhibits excellent dielectric, thermal and chemical properties which makes it an environmentally-safe replacement for PCB-containing fluids as the dielectric coolant for immersed transformers																														
Applications	BLUESIL™ FLD 604V50 is used principally as an insulating and cooling agent in immersed transformers. It may be also used in most medium-to-high tension applications (such as in switchboxes, induction coils, capacitors, resistors, etc.), where environmental and fire safety precautions must be considered (i.e. public buildings, built-up areas, underground, or near water).																														
Features	<ul style="list-style-type: none"> • Excellent dielectric properties • Excellent thermal stability • Inertness and chemical resistance • Good heat transfer properties • Flame resistant • Non-toxic to humans and the environment 																														
Typical Properties	<p>Typical Properties – as supplied</p> <table border="1"> <tr> <td>• Appearance</td> <td>clear liquid</td> </tr> <tr> <td>• Viscosity, 25°C, (77°F) cps</td> <td>50</td> </tr> <tr> <td>• Viscosity- Temperature Coefficient*</td> <td>0.59</td> </tr> <tr> <td>• Specific Gravity, 25°C, (77°F)</td> <td>0.96</td> </tr> <tr> <td>• Flash Point, (open cup) °C.(°F)</td> <td>300</td> </tr> <tr> <td>• Freeze Point, °C, (°F)</td> <td>-50</td> </tr> <tr> <td>• Refractive index @ 25°C, (77°F)</td> <td>1.402</td> </tr> <tr> <td>• Surface tension @ 25°C (77°F), dynes/cm</td> <td>21</td> </tr> <tr> <td>• Vapor Pressure @ 200°C, (392°F), mm Hg</td> <td>1.33×10^{-3}</td> </tr> <tr> <td>• Coefficient of Expansion, between 25 and 100°C</td> <td>1.05×10^{-3}</td> </tr> <tr> <td>• Dielectric Strength, ASTM D877; 25°C, kV/mm</td> <td>40 minimum</td> </tr> <tr> <td>• Dielectric Strength, AFNOR NFC 27221 & CEI156; 25°C, kV/mm</td> <td>50 minimum</td> </tr> <tr> <td>• Volume Resistivity, 25°C; Ω cm</td> <td>1×10^{15} minimum</td> </tr> <tr> <td>• Dielectric Constant, 25°C; 50/60 HZ</td> <td>2.7</td> </tr> <tr> <td>• Dielectric Dissipation Factor, 25°C; 50/60 HZ</td> <td>3×10^{-5} minimum</td> </tr> </table> <p>* Viscosity-Temperature Coefficient = $1 - (\text{viscosity @ } 99^\circ\text{C} / \text{viscosity @ } 38^\circ\text{C})$</p> <p><small>Please note:</small> The typical properties listed in this bulletin are not intended for use in preparing specifications for any particular application of BLUESIL™ silicone materials. Please contact our Technical Service Department for assistance in writing specifications.</p>	• Appearance	clear liquid	• Viscosity, 25°C, (77°F) cps	50	• Viscosity- Temperature Coefficient*	0.59	• Specific Gravity, 25°C, (77°F)	0.96	• Flash Point, (open cup) °C.(°F)	300	• Freeze Point, °C, (°F)	-50	• Refractive index @ 25°C, (77°F)	1.402	• Surface tension @ 25°C (77°F), dynes/cm	21	• Vapor Pressure @ 200°C, (392°F), mm Hg	1.33×10^{-3}	• Coefficient of Expansion, between 25 and 100°C	1.05×10^{-3}	• Dielectric Strength, ASTM D877; 25°C, kV/mm	40 minimum	• Dielectric Strength, AFNOR NFC 27221 & CEI156; 25°C, kV/mm	50 minimum	• Volume Resistivity, 25°C; Ω cm	1×10^{15} minimum	• Dielectric Constant, 25°C; 50/60 HZ	2.7	• Dielectric Dissipation Factor, 25°C; 50/60 HZ	3×10^{-5} minimum
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Storage and shelf life	BLUESIL™ FLD 604V50 when stored in the original, unopened container at room temperatures (5-25°C/41-77°F), has a shelf life of 36 months from the date of manufacture. Beyond this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.																														
Safety	Please read the container labels for BLUESIL™ FLD 604V50 or consult the Material Safety Data Sheet (MSDS) before handling for safe use, physical and health hazard information. The MSDS is not included with the product packaging, but can be obtained by contacting Bluestar Silicones at 866-474-6342 or consult your Bluestar Silicones representative.																														
Packaging	BLUESIL™ FLD 604V50 is available in 200 kg containers. Certificate of Analysis for each lot purchased is available on request.																														

BLUESIL™ is a trademark of Bluestar Silicones

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Warning to users

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and is in no way binding, particularly as regards to infringement of or prejudice to third party rights through the use of our products. **BLUESTAR SILICONES** warrants that its products comply with its sales specifications. This information must not be used as a substitute for necessary prior tests, which ensure that a product is suitable for a given use. Determination of the suitability of product for the uses and applications contemplated by user and others shall be the sole responsibility of user. Users are responsible for ensuring compliance with local legislation and for obtaining necessary certifications and authorizations. Users are requested to ensure that they are in possession of the latest version of this document; please contact **BLUESTAR SILICONES** for the latest version and any additional information.