## Product Data Sheet

## TRAFOL IEC IN

TRAFOL IEC IN is an Inhibited Transformer Oil meeting the IEC 60296 Edition 5 (2020) specifications and is type B TVBI. It possesses excellent electrical and oxidation stability characteristics.

| S. No. | Characteristic | Unit | Test Method | Guaranteed Data |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Min. | Max. |
| A. | Function |  |  |  |  |
| 1 | Viscosity at $40^{\circ} \mathrm{C}$ | cSt | ISO 3104 |  | 12 |
| 2 | Viscosity at $-30^{\circ} \mathrm{C}$ | cSt | ISO 3104 |  | 1800 |
| 3 | Pour Point | ${ }^{\circ} \mathrm{C}$ | ISO 3016 |  | -40 |
| 4 | Water Content, Bulk/ Drum | ppm | IEC 60814 |  | 30/40 |
| 5 | Breakdown Voltage |  | IEC 60156 |  |  |
|  | As delivered/ After treatment | kV |  | $30 / 70$ |  |
| 6 | Density at $20^{\circ} \mathrm{C}$ | $\mathrm{g} / \mathrm{ml}$ | ISO 3675 or ISO 12185 |  | 0.895 |
| 7 | DDF at $90^{\circ} \mathrm{C}$ |  | IEC 60247 or IEC 61620 |  | 0.005 |
| B. | Refining/ Stability |  |  |  |  |
| 8 | Colour | - | ISO 2049 |  | 1.5 |
| 9 | Appearance | - | - | Clear, free from sediment and suspended matter |  |
| 10 | Acidity | mgKOH/gm | IEC 62021-1 or -2 |  | 0.01 |
| 11 | Interfacial tension | $\mathrm{mN} / \mathrm{m}$ | $\begin{aligned} & \text { EN } 14210 \text { or ASTM } \\ & \text { D971 } \end{aligned}$ | 40 |  |
| 12 | Corrosive Sulphur | - | DIN 51353 | Not corrosive |  |
| 13 | Potential Corrosive Sulphur | - | IEC 62535 | Not corrosive |  |
| 14 | DBDS | $\mathrm{mg} / \mathrm{Kg}$ | IEC 62697-1 (in prep.) | Not detectable (<5) |  |
| 15 | Antioxidants | \% | IEC 60666 | Inhibited (0.08-0.4) |  |
| 16 | Metal passivator additives | $\mathrm{mg} / \mathrm{Kg}$ | IEC 60666 | Not detectable (<5) |  |
| 17 | Other additives | - |  | Does not contain any other additives |  |
| 18 | 2-Furural and related compounds content | $\mathrm{mg} / \mathrm{Kg}$ | IEC 61198 | Not detectable (<0.05) for each individual compound |  |
| C. | Performance |  |  |  |  |
| 19 | Oxidation Stability |  | IEC 61125:1992 (Method C) Test duration - (I) Inhibited Oil 500 hrs. |  |  |
| a) | Total acidity | mgKOH/gm | 1.9.4 of IEC 61125:1992 |  | 1.2 |
| b) | Sludge | \% | 1.9.1 of IEC 61125:1992 |  | 0.8 |
| c) | DDF at $90^{\circ} \mathrm{C}$ | - | $\begin{aligned} & \text { 1.9.6 of IEC } \\ & \text { 61125:1992, } \\ & \text { Amendment } 1 \text { (2004)+ } \\ & \text { IEC } 60247 \end{aligned}$ |  | 0.5 |
| D. | Health, Safety and Environment (HSE) |  |  |  |  |
| 20 | Flash Point | ${ }^{\circ} \mathrm{C}$ | ISO 2719 | 135 |  |
| 21 | PCA content | \% | IP 346 |  | 3 |
| 22 | PCB content | mg/Kg | IEC 61619 | Not de | table (<2) |

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