

TECHNICAL SPECIFICATIONS

HVO (HYDROTREATED VEGETABLE OIL) COMMERCIAL SALES SPECIFICATION

Meets or Exceeds EN 15940: 2016+A1:2018+AC:2019

| Parameter | Unit | Test Method | Limits | | Notes | |
|--|--------------------|------------------------------|----------|-------|-------|---|
| | | | Min. | Max. | | |
| Cetane number | - | EN 15195 | 51 | - | | |
| Density at 15°C | kg/m ³ | EN ISO 12185 | 765 | 800 | | |
| Flash point | °C | EN ISO 2719 | 60 | - | | |
| Viscosity at 40°C | mm ² /s | EN ISO 3104 | 2.000 | 4.500 | | |
| Distillation | recovered at 250°C | % (V/V) | - | <65 | | |
| | recovered at 350°C | % (V/V) | 85 | - | | |
| | 95 % recovered | °C | - | 360 | | |
| Lubricity, wear scar diameter (WSD) at 60°C | µm | EN ISO 12156-1 | - | 400 | | |
| Fatty Acid Methyl Ester (FAME) content | % (V/V) | EN 14078 | - | 0.05 | | |
| Manganese content | mg/l | EN 16576 | - | 2 | | |
| Total aromatics content | % (m/m) | EN 12916 | | 1.1 | | |
| Sulfur content | mg/kg | EN ISO 20846 EN ISO 20884 | - | 5.0 | | |
| Carbon residue (on 10% distillation residue) | % (m/m) | EN ISO 10370 | - | 0.30 | | |
| Ash content | % (m/m) | EN ISO 6245 | - | 0.010 | | |
| Water content | mg/kg | EN ISO 12937 | - | 200 | | |
| Total contamination | mg/kg | EN ISO 12662 | - | 24 | | |
| Copper strip corrosion (3 h at 50°C) | rating | EN ISO 2160 | class 1 | | | |
| Oxidation stability | g/m ³ | EN ISO 12205 | - | 25 | | |
| Electrical Conductivity | pS/m | IP 274 | 50 | - | | |
| Cloud Point | Grade C ("Summer") | °C | EN 23015 | - | +0 | 2 |
| | Grade E ("Winter") | | IP 444 | - | -10 | |
| CFPP (Cold Filter Plugging Point) | Grade C ("Summer") | °C | EN 116 | - | -5 | 2 |
| | Grade E ("Winter") | | EN 16329 | - | -15 | |

Notes:

- Contractual requirements may supersede the limits in this specification.
- Product Seasonality:

| Winter | Summer |
|---|---|
| 16 th October – 15 th March | 16 th March – 15 th October |