

# Furnaceflame™

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The **cost saving** alternative to gas oil  
for heating applications



## Assured **performance**, lower costs

Watson Fuels is proud to offer Furnaceflame™, a cost-effective alternative to gas oil for commercial heating applications such as boilers, dryers and heaters.

## A drop-in replacement for gas oil

Blended in the UK by our colleagues at Henty Oil, Furnaceflame™ has been developed for use as a direct replacement wherever regular gas oil is being used for heating purposes.

Alternative industrial heating products can often contain components derived from waste oils. Such products not only increase the risk of plant failure due to fouling, but can also reduce the efficiency of heat transfer leading to increased fuel consumption.

Furnaceflame™ is different. Blended entirely from virgin components sourced from UK and European refiners, Furnaceflame™ can be used as a drop-in replacement for gas oil and most other alternative heating oils\* across a wide range of burner and furnace applications without any compromise in performance. Fully miscible with gas oil in all proportions, no plant modifications are needed to switch to Furnaceflame™ and there is no need to drain the existing oil in your tank.

Regular gas oil is more expensive to produce than Furnaceflame™ as it must meet exacting standards for use in off-road mobile plant. Further, gas oil is also subject to additional government levies for road fuel which do not apply to Furnaceflame™. Furnaceflame™ can therefore be offered at a lower price than regular gas oil, meaning significant cost savings for your business.

**For further information on Furnaceflame™, please contact your local depot or visit [www.watsonfuels.co.uk/furnaceflame](http://www.watsonfuels.co.uk/furnaceflame)**

# Furnaceflame™ specification

| Property  | Units              | Quality |       | Test method    | Typicals   |
|---|--------------------|---------|-------|----------------|------------|
|   |                    | MIN     | MAX   |                |            |
| Kinematic viscosity at 40°C                                   | mm <sup>2</sup> /s | 2.0     | 5.0   | IP 71          | 2.30       |
| Density @ 15°C  | kg/m <sup>3</sup>  | 820     | -     | IP 365         | 824.0      |
| Carbon residue (micro)<br>[10% (V/V) distillation bottoms]    | % (w/w)            | -       | 0.30  | ASTM D4530     | < 0.01     |
| Distillation recovery   | @ 250°C            | -       | 65    | ASTM D86       | 55         |
|   | @ 350°C            | 85      | -     |                | 88         |
| Flash point   | °C                 | 45      | -     | IP 34          | 55         |
| Water content   | % (w/w)            | -       | 0.020 | IP 438         | 0.004      |
| Particulate content   | mg/kg              | -       | 24    | IP 415         | < 5        |
| Ash content   | % (w/w)            | -       | 0.01  | IP 4           | < 0.001    |
| Sulphur content   | % (w/w)            | -       | 0.1   | IP 336         | 0.03       |
| Copper corrosion (3h at 50°C)                                 | class              | -       | 1     | BS EN ISO 2160 | 1a         |
| Cold Filter Plugging Point                                    |                    |         |       |                |            |
| Summer (16 March - 15 November)                               | °C                 | -       | -4    | IP 309         | -22        |
| Winter (16 November - 15 March)                               |                    |         | -12   |                | -22        |
| Strong acid number  | mgKOH/g            | -       | zero  | IP 139         | Zero       |
| Lubricity corrected mean wear scar diameter (wsd 1.4) at 60°C | µm                 | -       | 460   | BS 2000-450    | 340        |
| Oxidation stability   |                    |         |       |                |            |
| 0.0 - 7.0 % FAME <sup>(b)</sup>                               | g/m <sup>3</sup>   | -       | 25    | BS 2000-388    | 8          |
| 2.0% - 7.0 % FAME <sup>(c)</sup>                              | h                  | 20      | -     | BS EN 15751    | -          |
| FAME content  | % v/v              | -       | 7.0   | BS 14078       | Zero Added |

| Property  | Quality                      |
|---|------------------------------|
| Specific energy (calorific value), MJ/kg of oil   | Gross - 45.74 Net - 42.84    |
| Gross heat of combustion                          | Gross - 10925 Net - 10235    |
| Carbon / hydrogen (% m/m)                         | Carbon - 86.4%               |
| Nitrogen (% m/m)                                  | < 0.1%                       |
| Equivalent to MJ / kg of CO <sub>2</sub> produced | 14.4 MJ / kg CO <sub>2</sub> |

(a) Furnaceflame exceeds winter grade all year round

(b) Oxidation stability by BS 2000-388 is a requirement for all fuels. BS EN 15751 is an additional requirement for fuels containing FAME at concentrations at/or exceeding 2.0% (V/V)

(c) For diesel fuel containing FAME above 2%(V/V) this is an additional requirement. Not relevant for this specification as zero FAME added.

## Key features

- Can be used across the whole range of furnace and burner applications.
- Offers significant savings vs regular gas oil.
- Fully miscible with existing gas oil product in your tank.
- Offers the same energy output as regular gas oil, at a lower price.
- Biodiesel free – hugely reduces the risk of contamination through water pick up and consequent microbial spoilage.
- A virgin product – contains no waste oil or products derived from waste oils.
- Fully compliant with BS 2869:2017 Class D for heating applications.
- 'Winter-grade' all year round, with no risk of waxing.

Furnaceflame™ is only for use in heating applications and is not to be used as a road fuel or as a fuel for any other engine, motor or machinery. Furnaceflame™ meets BS 2869:2010 Class D except for the cetane number requirement, which is not applicable for heating applications.

## Fuelling your business since 1957

**Watson Fuels has been supplying fuel and lubricants to businesses, farms and homes across the country for over half a century.**

### **We are where you are**

With a network of more than 50 depots nationwide, we're well placed to deliver, and now serve more customers and more parts of the country than ever before.

### **Beyond fuel**

A division of World Fuel Services, we're proud to combine our tailored, local service with the backing and scale of a Fortune 100 global energy leader. With operations in over 200 countries and territories, partnerships with major and regional suppliers, and strategic product inventories around the world, Watson Fuels can offer a single point of provision for all of your fuel, lubricant and energy needs.

### **True to our roots**

Constant amongst all of our divisions is a commitment to seamless solutions and outstanding service – the very same principles that Tony Watson instilled when the company was founded in 1957.

Personal service with comprehensive coverage from a name you can trust. That's what we've been delivering for over six decades.

**For further information on any of the products and services in this brochure, and to find your local office, please visit [www.watsonfuels.co.uk](http://www.watsonfuels.co.uk)**





A World Fuel Services company



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