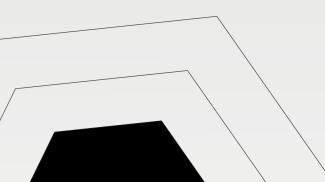


Industrial Heating Oil (IHO) is specifically made for commercial boiler applications for heat generation and is a lower cost alternative to using red diesel or gas oil to heat your business.

### A commercially attractive alternative to gas oil

Our Industrial Heating Oil (IHO) has been developed specifically for use in commercial heating applications and is commonly used in large public buildings, hospitals, schools, factories, hotels, distilleries, quarries and grain dryers throughout the UK.

Blended at our in-house facilities in Bury, Lancashire and at the Nustar Terminal in Eastham, our IHO is a fully rebated product (nil excise duty), meaning it is strictly prohibited for use in both on and off-road vehicles or any other mobile or static engines.



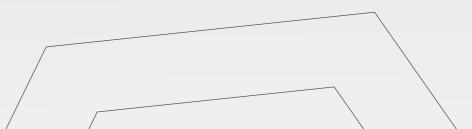
Many other industrial heating fuels can include components derived from straight waste oils, increasing the chance of plant failure due to fouling and decreases the efficiency of heat transfer. Both are leading causes of increased fuel consumption.

Our IHO is a clean product, manufactured from components that do not contain or include heavy metals, halogens particulates, waste oils or residual fuel oils. Its unique blend of petroleum fractions and performance additives provide a commercially attractive alternative to regular gas oil, with none of the drawbacks of inferior commercial blends.

## Make significant business cost savings with IHO

Crown Oil's IHO is free of the additional taxes levied against road diesel.

Red diesel must also meet exacting standards for use in off-road mobile plants, which IHO doesn't have to adhere to.



#### **Main benefits of IHO**

Crown Oil IHO can be used as a direct replacement for red diesel without compromising on performance. To make the switch, there is no need for downtime and no need to run your fuel tank dry. Other features include:

- Compatible with BS2869 Class A2 10 ppm & Class D 1000 ppm (except for Cetane Value) - British standard for heating oil
- Same calorific value as gas oil giving you the same heat output as red diesel but for less money
- · Same physical properties as gas oil no burner modifications required
- Totally miscible with gas oil no need to empty fuel tanks of red diesel
- Low CFPP/pour point allows year-round summer/winter performance unlike red diesel
- Reduced sulphur content lowers acidic flue gas emissions by up to 50% compared to Class D gas oil
- FAME/biodiesel free reducing the potential for a bacterial attack on the stored fuel
- Contains multifunctional additive provides fuel system cleanliness and corrosion protection, reduced emissions and combustion chamber deposit control
- Light colour, low odour and sediment-free much cleaner than other commercially available product



Drop-in alternative to gas oil with no modifications required



FAME-free so no risk of diesel bug



No risk of waxing in cold temperatures



Prolonged shelf life
- buy in bulk and
store all year round



Same heat output but for less money

# **High Quality Fuel**

We source our own blend components internationally and have a team of chemists with more than 60 years' industry experience.

All incoming raw materials are quality checked in our onsite laboratory facility and blended fuel isn't released until it's been tested and approved through our lab.

"Our aim was to create a product that's exactly the same as gas oil in terms of its physical properties whilst being a more efficient option of heating oil. With no equipment modifications required, winter grade fuel and a prolonged shelf life, you can store IHO safely all year round."

# **IHO Technical Specifications**

Parameter	Unit	Minimum	Maximum	Typical
Appearance	-	Clear and bright, pale yel- low. Free from visible sedi- ment.	-	Pass
Density at 15°C	Kg/litre	0.820	-	0.830
Kinematic viscosity at 40°C	cSt	2.0	5.0	2.4
Carbon residue	% m/m	-	0.30	<0.3
Distillation recovery at 250°C At 350°C	% <b>v/v</b>	- 85	65 -	60 92
Flash point (PMCC)	°C	55	-	65
Water content	mg/kg	-	200	100
Particulate content	mg/kg	-	10	<10
Ash content	% m/m	-	0.01	<0.01
Sulphur content	% m/m	-	0.10	0.05
Copper corrosion (3hrs at 50°C)	Class	-	1	1
CFPP - Summer - Winter	°C	-	-4 -12	-25
Strong acid number	mgKOH/g	-	Zero	Zero
Oxidation stability	g/m	-	25	<25
Fatty Acid Methyl Ester (FAME content)	% v/v	-	0.01	Nil
Gross Calorific Value	MJ/kg MJ/litre	-	-	46.00 38.00
Lubricity Mean Wear Scar Diameter at 60°C HFRR	pm	-	460	420