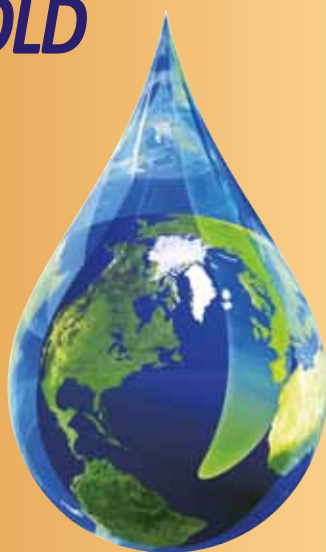


ENHANCED GAS TURBINE COMPRESSOR CLEANERS

ZOK 27^{GOLD}

ZOK mx^{GOLD}

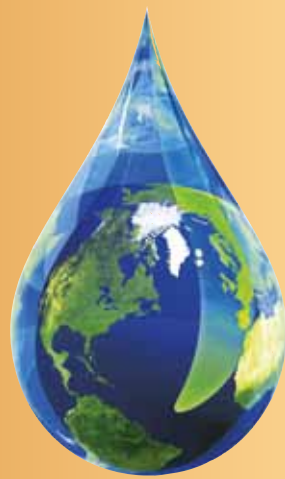
Environmentally
responsible
cleaning
solutions for all
gas turbine
compressors since 1980.



Used worldwide in these sectors



LESS FUEL MORE POWER FEWER EMISSIONS



Cleaning with ZOK extends the time between comprehensive overhauls, greatly improving the availability and reliability of any compressor, significantly reducing the through life cost of an engine.

ZOK GOLD products are ultra-refined versions of ZOK 27 and mx, providing major benefits such as reduced ash and OSPAR (Oslo and Paris Convention) compliance.

Major environmental agencies have approved ZOK GOLD for use on engines operating in the most delicate eco-systems.

ZOK GOLD products are extremely biodegradable, with reduced marine toxicity, and show no evidence of bioaccumulation.

Produced to comply with regulations for use in the North Sea, ZOK GOLD is a next generation gas turbine compressor cleaning product you can trust.

ZOK **Cleaning Power
For All Gas Turbines**



Developed to comply with
environmental legislation

ZOK 27^{GOLD}

*Outstanding cleaning and corrosion
inhibition – eco-friendly – non-toxic*

Developed to comply with
environmental legislation

ZOK mx^{GOLD}

*Outstanding cleaning and corrosion
inhibition – tested to component level*

ZOK GOLD solutions are used internationally to clean all types of gas turbine compressors. ZOK GOLD products are very eco-friendly, biodegradable and versatile, offering the ability to wash gas compressors operating in delicate eco-systems



**ZOK
27^{GOLD}**

A neutral, water-based, environmentally friendly cleaning detergent, with corrosion inhibition for gas turbine compressors.

**ZOK
mx^{GOLD}**

An environmentally friendly, alkaline cleaning fluid, developed for more aggressive washing and corrosion inhibition of gas turbine compressors.



PRODUCT CHARACTERISTICS

TECHNICAL INFORMATION

PRODUCT USAGE

Composition New blend of renewable non-ionic surfactants, corrosion inhibitor, organic solvents and demineralised water.

Appearance Translucent golden coloured liquid with a strong, sweet odour.

New blend of renewable non-ionic surfactants, corrosion inhibitor, organic solvents and demineralised water.

Translucent golden coloured liquid with a strong, sweet odour.

Shelf Life

5 years

5 years

Typical values*pH*

7.0 – 7.5

8.0 – 8.5

Specific Gravity

1.030

1.030

Total alkali metal

<0.5 ppm after dilution

<0.5 ppm after dilution

Ash

<0.01%

<0.01%

Aromatic compounds

None

None

Alkyl Phenol Ethoxylates

None

None

Hydrocarbon solvents

None

None

2-Butoxyethanol

None

None

Dilution

Dilute 1 to 4 with water before use (20% solution).

Demineralised water (<11 μ S/cm conductivity) should be used for hot/on-line cleaning. Good quality drinking water (<500 μ S/cm conductivity) may be used for cold/off-line cleaning. Ready to use (RTU) versions of these products are available for users who do not have access to demineralised water.

Application

By spray ring or lance in either starter-driver (off-line) or fired (on-line) wash as directed by the engine manufacturers, in the quantities recommended in the engine manual.

It is essential during hot wash that the cleaner should leave as little ash residue as possible to avoid blocking turbine blade cooling holes. **ZOK 27 GOLD** has a maximum ash content of <0.01% as part of the compliance with OEM specifications for compressor washing fluid.

The unique corrosion inhibitor allows engines to be left ready for an instant restart, even in salty offshore conditions.

By spray ring or lance in either starter-driver (off-line) or fired (on-line) wash as directed by the engine manufacturers, in the quantities recommended in the engine manual.

It is essential during hot wash that the cleaner should leave as little ash residue as possible to avoid blocking turbine blade cooling holes. **ZOK mx GOLD** has a maximum ash content of <0.01% as part of the compliance with OEM specifications for compressor washing fluid.

ZOK mx GOLD also has a corrosion inhibitor as part of the formulation.

Water Rinse

Not necessary unless recommended by the engine manufacturer.

Recommended.

Dryout run

Not necessary unless recommended by the engine manufacturer.

Recommended.

Antifreeze

Add antifreeze below +5°C (see zok.com for more details and recommended dilutions). Compatible with Methanol, Isopropyl Alcohol and Mono Propylene Glycol. Mono Propylene Glycol is recommended by ZOK because it is biodegradable and has the minimum impact on the environment.

HEALTH & SAFETY

ZOK 27 GOLD and **ZOK mx GOLD** are not classified as toxic or hazardous.

The following precautionary advice appears in the Safety Data Sheets. Wash off all splashes. Wear rubber gloves if sustained contact is likely. Wear goggles if spraying.

ENVIRONMENTAL

Biodegradable – made of substances that will decay relatively quickly into elements that are recycled naturally.

Large spillage – absorb with sand or earth and collect for disposal. Observe national and local regulations.

LOGISTICS

Packaging

12.5 litre high density polyethylene can (USA 3.3 gallons). Gross weight 13 kg.

25 litre high density polyethylene can (USA 6.6 gallons). Gross weight 26.5kg.

210 litre L-Ring high density polyethylene drums (USA 55.5 gallons). Gross weight 220 kg.

1000 litre returnable International Bulk Container (IBC) (USA 264 gallons). Gross weight 1089 kg.

Packaging is UNII export grade.



Shipping

No restrictions. Suitable for transport on passenger aircraft. IATA/CAO classified as non hazardous for international transport by sea/air.

Storage

Non flammable. Store at room temperature between +4°C and 60°C. If inadvertently frozen, **ZOK 27 GOLD** and **ZOK mx GOLD** can be used after thawing out.

Tariff Code

34029090 Europe
3402.20.5100 USA

Designed and
manufactured by
ZOK in the UK



ACCREDITATIONS

Quality

BS EN ISO 9001:2008

Environmental

BS EN ISO 14001:2004

Joint Qualification System

Achilles

Health & Safety

OHSAS 18001:2007



Certificate 13300



Achilles Id. 25675



ZOK International Group Ltd

Elsted, Midhurst,

West Sussex, GU29 0JT, England.

Phone: +44 (0) 333 700 2727

Fax: +44 (0) 333 700 2728

Email: zok@zok.com

zok.com

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