

GREASE ANALYSIS



Performing grease analysis on a routine or as-needed basis provides useful information about the condition of the grease and bearing, while gauging the effectiveness of your maintenance strategy.

Grease is the preferred choice of lubricant for a variety of situations including:

- Low-speed, back and forth, or minimal bearing rotation (i.e. oil circulation doesn't work very well)
- High risk of shock loading / bearing deflection

- Sealing or leakage control
- Oil incompatibility concerns (i.e. zinc-based oils in an electric motor bearing)
- Serviceability concerns (i.e. restricted access, remote access)

These issues are carefully considered during design of the system and are just as important during operation. These conditions are often the exact failure modes that need to be monitored and controlled.

GREASE ANALYSIS TEST PACKAGE OPTIONS

With nearly 90 percent of all bearings being lubricated with grease, routine grease testing and analysis is an important part of your preventive and predictive maintenance programs.

GREASE ANALYSIS TEST PACKAGES	Grease Screening	Grease Standard	Grease Advanced
Applications *May require additional, triggered or custom tests. Contact Fluid Life for more information.	• Small electric motors • Chain grease • Mobile joints • Wheel bearings	• Large electric motors • Automatic greasing systems • Robot arms	• Large diameter bearings • Troubleshooting bearing failures* • Confirmation of grease quality, stability, compatibility*
Total Magnetic Iron PQ Equivalent	•	•	•
Oxidation by FTIR	•	•	•
Color	•	•	•
ICP Spectrometry 25 Elements		•	
Penetration Test Unworked		•	•
RULER Remaining Useful Life			•
Analytical Ferrography			•
Sample Volume / Turnaround Time	10ml / 7-days	10ml / 7-days	10ml / 7-days

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GREASE COMPATIBILITY

When deciding to make a lubricant change, grease compatibility must be taken into consideration. Whether two greases are compatible depends on:

- Thickener type
- Base fluid
- Resulting grease properties after mixing

While the compatibility chart provides a general guideline to determining the basic compatibility between two greases, a grease compatibility test is recommended when critical applications are involved.

As with any lubricant, we recommend that you consult the equipment service manual or contact your machinery manufacturer to see what they recommend when determining what grease to use in your specific application. The safest practice is to avoid mixing of greases.

Fluid Life can also conduct grease compatibility tests – contact us to find out more.

BEST PRACTICES

The following list of best practices will help to improve the overall quality of your grease lubrication program:

- Dedicate a grease gun to a grease type and tag it using a unique color or shape coding and clear lettering.
- Avoid mixing greases with incompatible base oils, additives, and thickeners – always consider grease compatibility when changing grease.

- Regularly calibrate your grease application guns in case the gun's output per shot changes.
- Keep guns clean and avoid laying them on dirty surfaces. Repack on a clean bench using a gun loader fitting. Keep covered when not in use.

GREASE SAMPLING KITS

Additional grease sampling kits are also available for purchase through the Fluid Life online shop. Kits are sold in packages of 10 and testing is **not** included.

Each kit includes:

- Plastic coring spatula
- Slit lined coring tube
- Plastic syringe
- Sampling procedure
- Plastic bag with sample label

For more information on our grease analysis services, contact a Fluid Life Representative.

We're a company that's All Ways Reliable. From analysis and evaluation to planning and strategy, Fluid Life has the expertise to help you achieve a higher level of reliability.

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