



FERRUM

THE WORLD'S FIRST FLUID
WITH WET DRYING CAPABILITIES

FIELDS OF APPLICATION

Pro-Ferrum is designed for firearm cleaning, metal cleaning, long term metal protection, removal of water and lubrication. The fluid is also suitable for the care of wood, smooth leather, rubber and modern plastic materials of guns.

GENERAL DESCRIPTION

Pro-Ferrum is not a classic oil, but was developed as a complex fluid for gun care. In complex fluids a variety of active ingredients work together in a molecular-physical way. This synergy of physical forces of molecules is more efficient and smoother to the surface than in the case of a chemical attack.

The unique properties of Pro-Ferrum are based on this molecular team-work:

- auto-emulsifying: absorbs water automatically in the form of very small droplets and thus prevents direct contact with metal.
- super-spreads, undercuts and breaks up combustion residues.
- neutralises acids from fingerprints and combustion.
- dissolves the very early beginning of rust and forms an anti-corrosion layer.

All ingredients are very gentle to the skin (DERMATEST certified as EXCELLENT™) and to other materials. Due to its natural plant extracts Pro-Ferrum inhibits microbial attacks in its pure form, but when mixed with water, Pro-Ferrum is readily biodegradable and environmentally friendly.

Pro-Ferrum **does not** contain silicone oils or any fluoro-polymers. Especially fluoropolymers form corrosive and toxic hydrofluoric acid at the high combustion temperatures in the barrel. The use of such oils is therefore not recommended.

APPLICATION DESCRIPTION

FREQUENT CLEANING AND MAINTENANCE

Tip of a gunsmith: a bit of regular cleaning is better than intensively after a long time!

The cleaning effort can be minimised significantly by regularly treating the gun with Pro-Ferrum after use in order to remove any form of firing or other contamination. The cleaning does not necessarily have to be particularly intensive. Even with a little maintenance and small amounts of Pro-Ferrum no deposits can build up to a critical hard layer. Pro-Ferrum users notice that cleaning becomes faster, more efficient and easier over time.

CLEANING OF FIREARM PARTS IN GENERAL

1. Spray some Pro-Ferrum on a soft cloth.
2. Wipe the gun parts with this cloth to create a very thin oil film.
3. If necessary, rub with a dry cloth to absorb excess liquid.

PRE-CLEANING OF THE BARREL

Tip: Pre-cleaning of the barrel immediately after shooting is finished before travelling home

1. Give a short spray into the barrel.
2. Before travelling home enclose the barrel with a soft material (cotton wool, felt, tissue). Pro-Ferrum now spreads evenly inside the barrel.
3. Pro-Ferrum infiltrates and softens the deposits during the journey. This simple pretreatment can shorten the actual cleaning significantly and allows time for Pro-Ferrum to work. After transport, clean the barrel and the firearm as follows:

REMOVING WATER FROM FIREARM BY AUTO-EMULSIFICATION

1. Spray Pro-Ferrum directly onto wet parts.
2. Wait about 30 seconds until the water turns milky.
3. Wipe off with a soft dry cloth.
4. Spray again some Pro-Ferrum and wipe the film with a dry cloth.

CLEANING THE BARREL OF CARTRIDGE FIREARMS

1. Put a cleaning patch or felt onto a cleaning rod and spray some Pro-Ferrum on it.
2. Push the rod with the patch / felt slowly and carefully through the barrel, starting at the cartridge chamber towards the muzzle. Caution: do not damage the muzzle with the tool! Check if a bore guide would be useful.
3. Repeat procedure 1 to 2 until the patch / felt shows no more or hardly any residue.*)
4. Carefully pull one or two dry patches / felt through the barrel.
5. *) If there are significant tombac or lead residues in the barrel, repeat the procedure from 1 to 4 after about 2 days to 2 weeks if possible. Otherwise use a boresnake with brass brush. Pro-Ferrum is much gentler to the barrel than aggressive bore cleaners, but takes more time. By loosening the tombac residues, the felt will take a greenish colour, in case of lead a greyish colour.

CLEANING OF MUZZLELOADERS

1. Pre-cleaning of the barrel immediately after shooting is finished; see point above. Additionally use a soft cloth and a little bit of Pro-Ferrum to wipe off all parts that show signs of fumes.
2. After transport to the workshop, remove the barrel (if possible, depending on type of firearm) or connect it to a water source by means of hose connections.
3. Run water through the barrel as hot as possible until the water comes out clear.
4. Spray or soak a patch with Pro-Ferrum and wipe the barrel with the cleaning rod.
5. Repeat point 4 with a new patch until they come out nearly clean (usually about 3 to 4 patches are needed).
6. Spray sufficiently Pro-Ferrum into the barrel and wait for the fluid to exit the ignition hole.
7. Then wipe the barrel inside and outside with dry patches.
8. All parts of the gun which have been strongly exposed to combustion fumes should be wiped with a Pro-Ferrum sprayed cloth.

ADVANTAGES OF PRO-FERRUM

- Water displacement and encapsulation of water droplets
- No formation of resins
- Compatible with wooden parts. Due to auto-emulsifying properties the fluid keeps the natural moisture of the wood and does not lead to brittleness
- Continuous super-spreading covers surfaces with a very thin lubricating and protective film
- Excellent and fast removal of:
 - powder combustion residues
 - thin layers of tumbac and lead; lead stays as a metal and is not dissolved into toxic salts
 - early traces of rust: avoids further corrosion
- An ongoing intensive cleaning effect of the above
- Corrosion protection through the formation of molecular rust protection layers
- Care of:
 - steel
 - copper, brass, silver and gold fittings (for example such of historical collector's guns)
 - wood (avoids brittleness)
 - smooth leather
 - plastics (avoids brittleness and protects from free radicals, UV)
 - rubber (avoids brittleness and protects from free radicals, UV)
- Exceptionally well tolerated by the skin.

Pro-Ferrum recommends VFG cleaning felts, as they allow gentle cleaning with precise calibers. Together with Pro-Ferrum, they provide the best synergistic properties for weapon care.



DERMATEST certified as "EXCELLENT"



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