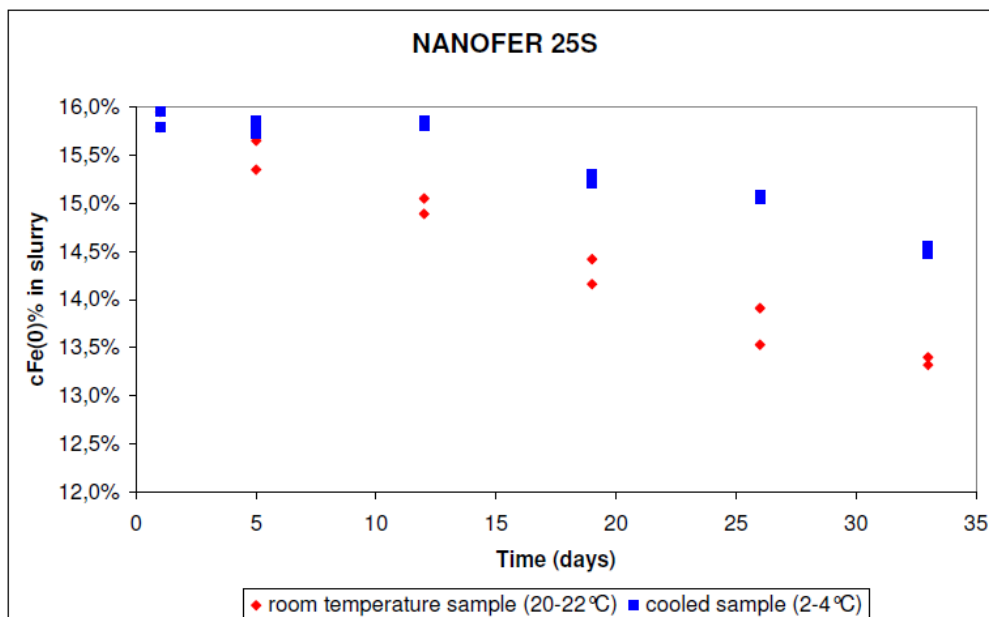


NZVI AGEING IN WATER ENVIRONMENT

High reactivity of nanoparticles causes fast corrosion (ageing) of iron in the presence of water – the water slurry is therefore not suitable for a long-time storage.

Solution of the problem: on-site manufacturing of fresh slurry from dry powder.

Following graph shows the ageing process during time depending on storage conditions:



Recommendations based on the ageing analysis:

- **NANOFER slurry is unstable – air oxygen and contact with water causes corrosion.**
- **The process is strongly temperature dependent – cooling slows down the product degradation. But do not freeze the slurry, otherwise an irreversible agglomeration occurs.**
- **Use the fresh product as soon as possible, avoid long-time storage. Open the bottle containing NANOFER slurry just prior to the application and use it at once if possible.**

NANO IRON company is ready to supply the fresh made slurries in the “just in time” manner to any place in the world via worldwide express shipping. The highest product quality is guaranteed only by using the product within the shortest possible time after its manufacturing.

It is recommended to prepare fresh slurry from a dry powder directly on the site of application if a large quantity of nZVI is used. This solution also saves transportation costs (water does not have to be transported, express shipping becomes wasteful). Slurry products are manufactured from dry nano-powder ([NANOFER 25P](#) or [air-stable NANOFER STAR](#)) by [dispersion units](#) provided by NANO IRON. Both powder products do not degrade during the time.