LIQUID GLASS
SURFACE PROTECTION

NSolve AS is one of the global leaders in providing eco-friendly coating solutions exclusively for the Oil and Gas industry. We offer a range of specialised coatings to protection against Corrosion, Reduce Friction in oil drilling and decrease cleaning cost for equipment. Our goal is provide environmentally friendly solutions in a simple and cost effective manner.

Some of the properties for the NP protect:
- 500 times thinner than a human hair
- Environmentally friendly
- Safe
- Easy to clean
- Anti-bacterial properties
- Increased durability
- Corrosion protection
- Short drying period
- Frost resistant
- Acid protection
- Hydrophobic and oleophobic
- Protection against acids
- Stretches up to 250%
- Resistant to high/low temperatures (-150°c to +450°c)
- Surface is breathable

NP products are developed and manufactured in Germany from Nanopool GmbH and is based on silicondiooxid (Quartz sand). The coatings can be applied by spray, dipping, brush or cloth. The different NP products are optimized to achieve the best possible effect on the different types of surfaces.

Awards
Land der Ideen / Land of Ideas award.
Nanopool GmbH has received the Land der Ideen award for developed an efficient surface protection against bacteria within hospitals and elderly homes. 2600 companies competed for the award where “Liquid Glass” convinced the jury.

Green hero award i 2008 og 2009.
The product series “Liquid Glass” won the award 2 years in a row. The products reduces the need for aggresive chemicals which gives less waste and less damage to the environment.
The NSolve team has over 85 years combined experience from the oil and gas industry. We have experience from drilling, maintenance and modification. This experience has given us superior insight into the different problems within the industry, specifically corrosion problems and drillpipe issues.

Current solutions are obsolete, harmful to the environment or creates problems for the service companies. We also understand the strict rules and regulations for products and services in the oil and gas industry, especially for quality assurance and documentation.

Together with our German partner we have specially designed products for use in the oil and gas industry. With our coatings we can reduce the cost by protecting equipment against corrosion and reduce friction. The NP products can also be applied on already corroded equipment to stop further corrosion.

OIL AND GAS

Corrosion is one of the major problems faced by the oil and gas industry, especially in the North Sea. Our product, NP COR-196, can be used to preserve equipment for storage on land, protect equipment in use and stop further corrosion of already corroded equipment. The product has a drying time of 4-6 hours. After this the equipment can be used.

With the use of an efficient spray on unit, such as our own Tornador Z-010, it is possible to achieve a usage of 1 litre for 125m2 of our NP COR-196.

Benefits:
- Corrosion protection
- Protection against abrasion
- Protection against acids
- Hydrophobic
- Oleophobic
- No change in conductive properties
- Anti-microbial (against scaling)
- Can last up to 5 years or more depending on the abrasion

Areas of use:
Most types of metals can be protected by our NP surface protection.

CORROSION PROTECTION
NSolve together with Nanopool GmbH has developed a specialised solution to reduce friction and protect metal surfaces. The coatings can be used on any moving part where the goal is to reduce the friction and avoid using harmful oil based lubricants.

Because the product is liquid glass, when applied to both substrates it will form a permanent glass coating only 150 nanometer thick. This gives a glass against glass effect, reducing friction. This was specifically made for the drill pipe and to replace dope.

**Benefits:**
- Environmentally friendly
- Reduced friction
- Easy to apply
- Long lasting
- Oleophobic
- No conductive changes to material
- Anti-microbial properties

**Areas of use**
Most types of metals can be protected by our NP surface protection.

The Tornador Z-010 uses a tornado effect instead of straight simple pressured air. With this effect it gives a micro particle coating which is more uniform and very economical. This is the most efficient delivery system to cover large areas in a short space of time increasing efficiency and reducing cost.

**Benefits:**
- More efficient spray. Less overspray
- Easy to maintain
- Turn the knob and use for drying with only air
- Replaceable parts
- God buildquality
- Low noise
- 6 bar to 8 bar

**TORNADOR Z-010**

**REduced Friction**
Nsolve products, NP Liquid glass, plastic protects is specifically designed for protection of plastic and rubber. Because of the numerous properties it gives the material it is ideal for the oil and gas industry where the environment is harsh and there are large temperature variations.

The NP coating is easy to apply via spray, using a brush or dipping. The effect will be long lasting and gives the material added strength. This added strength is important for rubber seals in machinery used offshore and onshore. The drying time is only a few minutes and the material can be used/handled after this. Full effect will be achieved after 24 hours.

**Added properties:**
- Resistant to acids
- Hydrophobic
- Oleophobic
- Easy to clean
- Antimicrobial properties
- Graffiti protection
- Withstand rapid changes in the temperature, giving added protection for the material.
- The NP product can withstand temperatures from -150c to +450c.

**Areas of use:**

The product is suitable for use on most surfaces, including textiles (workers clothing and shoes), glass, wood, stone and semi-absorbant surfaces.

**Areas of use:**
- Textiles
- Wood
- Stone
- Glass
- Ceramic

**Other properties:**
- UV stabil
- Permanent
- Breathes

Nsolve products are tailored for different materials to give the best solution for the customer. For wood, stone and textiles, the NP product is water based. For any non-porous surface, alcohol is used in the product mix for it to bond with the surface.

**Other properties:**
- Soil repellant
- Food safe
- Hydrophobic
- Oleophobic
- Easy to apply
- Environmentally friendly
NSolve AS
Besøksadresse:
Thormøhlens Gate 49
5006 Bergen
Norge

Kontakt oss på Tlf: +47 45 18 10 52
eemail: post@nsolve.no
www.nsolve.no

Youtube video
Intro video
How it works
Nanopool for healthsector