

## Technical Data Sheet

### Anti-corrosion MP55

#### Product Information

MP55 is a one-component rust and corrosion resistant nano-coating product that protects the applied surfaces against harmful environmental conditions

#### Application Surfaces

- Metals & Alloys

Do not apply the product on surfaces including:

- Plastic
- Painted Metals & Alloys
- Rusty Surfaces
- Glass
- Ceramic & Enamel

#### Benefits & Key Features

- Water and oil repellency.
- Rust and corrosion resistance.
- Chemical resistance.
- UV protection.
- Easy to clean.

#### Instructions

Surfaces should be dry and free of any dust, oil, grease and other contamination.

Application should be made in a shaded and well-ventilated area.

#### Manual Application

\*It is recommended to try on a small area before covering the entire surface.

- Product is sprayed onto the surface in an essential amount with a trigger bottle.
- The surface should be buffed immediately with a dry, lint-free microfiber cloth in circular motions.

#### High Pressure Spraying

\* It is recommended to apply it to the final product after the trials are made and the optimum parameters are found.

- HVLP spray guns with 0.8 mm nozzle diameter should be preferred
- The distance between the surface and nozzle can be chosen between 35-50 cm depending on the other parameters
- Spraying pressure can be chosen between 5-6 bar depending on the other parameters
- The product should be sprayed onto the surface in the essential amount with a fine atomization

#### Curing

##### Room Temperature Curing

Dry to touch: 4 h at 23°C - 50% RH

Fully curing: 24 h at 23°C - 50% RH

##### Accelerated Curing

Dry to touch: 5 min. at 150°C

Fully curing: 30 min. at 150 °C

\*Curing time and temperature can be varied according to the heat resistance of the surface to be coated.

#### Application Tips

Do not apply the product on rusty surfaces. In the presence of any rust and/or oxidation trace, refine the surface with an appropriate metal/alloy cleaner.

Ensure that the temperature and relative humidity (RH) of the application space are as close as possible to the given values to achieve the highest product performance.

If the ambient temperature or relative humidity value is higher than the suggested intervals/values, the product may cure faster than expected.

Avoid direct sunlight during the application and only work on cool surfaces.

If required, clean the application surface thoroughly by applying a clay bar and/or polish using appropriate tools and silica/wax free cutting compounds. Finally, prepare the surface by using Nanoenzo Clean to improve the bonding performance of the nano coating. Ensure that there isn't any residual contamination and dry the surface with a lint-free microfiber cloth.

Shake the product gently before use.

#### Manual Application

Do not work on areas larger than 1 m<sup>2</sup> per session. Coincidence of coating areas during the application does not constitute any problem.

Before using the product, wear protective nitrile gloves.

Do not forget to keep the lid closed during the application.

To make the most of microfiber cloths, fold each one four times before application, and do not re-use the side of the cloth you used.

If the coating dries by itself on the surface until you buff or if you don't buff the surface sufficiently and because of that a hazy look occurs, immediately apply a little bit

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more product onto that spot and buff it again to solve the visual problem.

#### High Pressure Spraying

The product should be sprayed with a fine atomization. The surface should look homogeneous after the application. There shouldn't be any haze/marks on the surface.

If you had a wet looking surface after the application and because of that saw dots/marks on the surface, you can;

- Decrease the flow rate
- Increase the spraying distance
- Increase the spraying pressure
- Expand the pattern
- Increase the line speed

If you couldn't apply enough amount and couldn't obtain a good repellency, you can;

- Increase the flow rate
- Decrease the spraying distance
- Decrease the spraying pressure
- Narrow down the pattern
- Decrease the line speed

#### Curing

When the coated surface is dry to touch, it can be handled/packed. Fully curing process will continue.

Even if you apply a heat treatment to accelerate the curing process, keep the coated surface away from water/contamination for 24 hours and don't perform harsh tests on it.

#### Specifications

Packaging	1-5-30 L
Appearance	Yellow to Brown Liquid
Chemical Resistance	12>pH>1
Salt Water Resistance	Yes
Moisture Resistance	Yes
Dry Film Thickness	600-800 nm
Consumption per Unit Area (Manual Application)	5-8 mL/m <sup>2</sup>
Density @23°C	0.816 g/cm <sup>3</sup>
pH Value	5-6
Application Temperature	5°C-30°C (≤50% RH)
Temperature Durability	+275°C

Water Contact Angle	106° @10 µL
Water Sliding Angle	12° @60 µL
Oil Contact Angle	89° @10 µL
REACH Compliance	Yes

#### Durability

-20°C to +275°C / 1<pH<12
<i>Up to 1 year</i>

#### Removal

Once the product is cured, it is very difficult to remove it from the surface. In such a case, product removal can only be achieved by polishing with a special cutting compound. To avoid any harmful consequences generated due to the surface correction process, read the instructions carefully and watch application videos on Nanoenzo® web site.

#### Storage

To achieve a high quality of coating, keep the containers tightly closed in a dry, well ventilated space away from heat and ignition sources, stored at -3°C to +30°C. The color of product may turn into orange or light brown throughout the storage period. Do not return the excessive amount of product into its original container. The shelf life of product is 12 months from the date of production when stored in the unopened container under suggested storage conditions. After opening the container, it is recommended to use up the product within 1 week.

#### Disclaimer

The technical information described in this document is based on tests and other practical experience that NanoEnzo® believes are reliable. NanoEnzo® cannot guarantee anything but ready to use quality of the product at the time of shipment, disclaims any liability for product performance and incidental or consequential damages, according to self-implementation within the user's knowledge, beyond the manufacturer's control. Please refer to the Safety Data Sheet (SDS) before use of product.

Users should consult NanoEnzo® for guidance on the suitability of specific applications. Nanoenzo® reserves the right to change the given data without further notice.