



Magnetic Particle Testing

Product Data Sheet

MR[®]72

WHITE CONTRAST PAINT

The Method

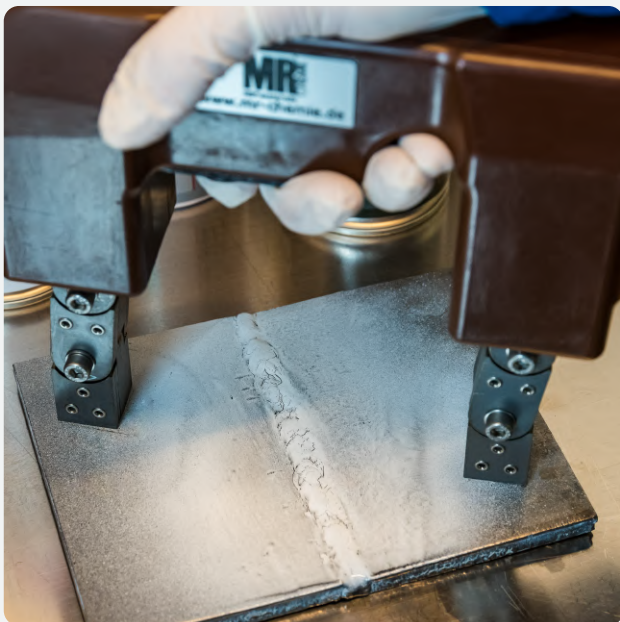
White contrast paint is applied to the surface of a test piece in Magnetic Particle Inspection (MPI) to enhance the visibility of magnetic particle indications. It creates a contrasting background color against the dark magnetic particles, making the indications more visible to inspectors. This is especially beneficial when the test piece's background color closely resembles that of the magnetic particles, making it challenging to discern the indications.

Description

MR[®]72 is a specialized, quick-drying coating designed for non-fluorescent magnetic particle inspection. It creates a smooth white film on the test surface to enhance detection and sensitivity. This high-contrast paint is bright white and opaque, providing an excellent background for visible magnetic particle inspections. It dries quickly when sprayed evenly and does not flake. When non-fluorescent or colored magnetic particles are applied, the indications stand out clearly against the white background.

Please note that different versions of MR[®]72 may be available in certain countries.

Please contact us to know more about all the versions available.



Benefits

- **Enhanced Visibility:** Provides high-contrast markings against dark surfaces, aiding flaw detection.
- **Improved Inspection Accuracy:** Ensures clear identification of defects for accurate assessment.
- **Efficient Inspection:** Facilitates quick and thorough examination of surfaces, reducing inspection time.
- **Versatile Application:** Suitable for both dry and wet method
- **Reduced Error Rates:** Minimises misinterpretation of results, enhancing overall inspection reliability.
- **Enhanced Safety:** Low toxicity levels ensure safer handling for operators and environmental compliance.
- **Increased Productivity:** Quick drying time and easy application streamline inspection processes, boosting productivity.
- **Long-lasting Results:** Forms a durable coating for long-term visibility of inspection marks.
- **Reliable Adhesion:** Adheres well to different materials, including metals, and composites, ensuring lasting contrast.
- **Industry Compliance:** Meets industry standards for quality assurance, ensuring adherence to regulatory requirements.
- Comes in a variety of spray pattern & functional options.

Features

- **High-Contrast Formulation:** Provides excellent visibility against dark backgrounds.
- **Easy Application Methods:** Can be applied using spray or brush techniques.
- **Quick Drying Time:** Instant drying minimises downtime during inspections.
- **Weather Resistance:** Withstands environmental conditions, suitable for outdoor applications.
- **Compatibility:** Works well with various magnetic powder suspensions for versatile inspection setups.
- **Non-Toxic Formula:** Low toxicity levels ensure operator safety and environmental compliance.
- **Conforms to Standards:** Complies with NDT industry standards, ensuring reliable inspection outcomes.
- **Matte finish:** Non-reflective background provides excellent matte finish.

Compliances

ASME Code V, Art. 7
DIN ISO 9934 (BS 5044)
ASTM E 709
PMUC (EDF)
ASME BPVC

Physical & Chemical Properties

Appearance	White liquid
Chemical Composition	Mixture of White pigments, additives and solvent
Basis	Acetone
Colour in visible light	White
Colour in UV light	Non-fluorescence
Odour	Characteristic

Surface Preparation

Before applying MR®72, ensure that the surface to be inspected is thoroughly cleaned and free from any form of contamination that could interfere with the test. Remove grease, oil, dirt, or any other substances that may affect the accuracy of the inspection.

Usage Instructions

NDT Method	Magnetic Particle Inspection	
Equipments required	Magnetising device	
Recommended Usage	-10°C to +85°C 14°F to 185°F (All Variants)	-10°C to +200°C 14°F to 392°F MR72 (V. EZ)

Application:

Shake the can well before use. Apply after MR®72 (white contrast paint) that forms a smooth white film, providing the necessary contrasting background for the magnetic particle indications. Allow it to dry before applying magnetic suspension.

Please note: Maintain a distance of 7 to 9 inches (18 to 24 cm) between the can and the test area.

This may differ depending on the version.

Suggested Products

MR®79: A solvent based cleaner for removing contaminants such as oil, grease and dirt. This can also remove MR®72 (White Contrast Paint) effectively.

MR®51: Hand Yoke

Safety

Magnetic particle inspection (MPI) is generally safe when conducted by trained professionals who follow appropriate safety measures. However, individuals with pacemakers or implanted medical devices should take precautions due to potential risks from the magnetic field and UV light used in the inspection process.

Please read the Material Safety Data Sheet before use!

(Available at: <https://www.3akchemie.com/resources-mrchemie>)

Wear the appropriate safety gears while using the product.

Ingredients: Titanium-di-oxide, Acetone

Storage Temperature: 41°F to 113°F / +5 °C to +45 °C

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Notice

3AK Chemie makes no warranties expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining whether our product is fit for a particular purpose and suitable for users method of application.

Limitation of Remedies & Liabilities

If this product is proved to be defective, the exclusive remedy at 3AK CHEMIE's option shall be to refund the purchase price or to repair or to replace the defective MR® CHEMIE product. The company shall not otherwise be liable for loss or damages, whether direct or indirect, special, incidental or consequential regardless of the legal theory asserted including negligence, warranty or strict liability.

Packaging & Order Instructions

Product	SKU	Pack Size	Case
MR®72 (OR)	2511-0015	Aerosol - 400ml	10
MR®72 (EZ)	2511-0017	Aerosol - 400ml	10
MR®72 (HD)	2511-0018	Aerosol - 400ml	10
MR®72 (AU)	2511-0019	Aerosol - 400ml	10
MR®72 (IN)	2511-0020	Aerosol - 400ml	10
MR®72 (IN)	2511-0112	Bulk - 5L	-
MR®72 (OR)	2511-0189	Bulk - 5L	-
MR®72 (OR)	2511-0190	Bulk - 1L	6



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