



# Penetrant Testing

Product information

MR® 67 PS - MR® 67 DL - MR® 67

**MR**<sup>®</sup>  
CHEMIE  
NDT-materials

## MR® 67 PS - MR® 67 DL - MR® 67

### Penetrant red and fluorescent

for penetrant testing according to EN ISO 3452-1:2013

#### Product properties / advantages:

- Water and solvent removable red penetrant, type II + III acc. to EN ISO 3452-1
- Optimized application of aerosol can because of varied aerosol technology<sup>2)</sup>
- No residues of penetrant on the aerosol can after spraying<sup>2)</sup>
- Brilliant wetting
- No Azo-dye
- Very good biodegradability acc. to EN ISO 9888<sup>\*)</sup>)
- Solvents reduced to a minimum
- Environmentally friendly application
- **Water based, no odour nuisance**
- Processing temperature: +10 to +50°C
- + 5°C - + 100°C  
only in combination with MR® 67 with MR® 70 and MR® 88 or water
- Dual crack detection under daylight and UV-light
- Suitable for metals, plastics and ceramics (suitability for ceramics needs testing prior to use)
- Agent without VOC
- **ECO-Line - No declaration of hazardous ingredients acc. to CLP – regulation (EC) Nr. 1272/2008<sup>2)3)</sup>**
- Efficient application<sup>1)</sup>
- Precise apportioning<sup>1)</sup>
- No spray fog during application<sup>1)</sup>
- Less propellant<sup>1)</sup>
- **No propellant<sup>2)</sup>**
- Registered utility model<sup>1)</sup>
- Aerosol can overhead sprayable 360°<sup>2)</sup>



<sup>1)</sup> MR® 67 PS (Foam), <sup>2)</sup> MR® 67 DL (aerosol compressed air), <sup>3)</sup> MR® 67 (bulk)



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## Relevant approvals and specifications

- Sample testing acc. to EN ISO 3452-2:2006
- Sensitivity class 2 acc. to EN ISO 3452-2:2006,  
System IIIAe
  - Remover: Water
  - Developer: MR® 70
- System IIIAc
  - Remover: Water
  - Developer: MR® 703 W
- System IIICe
  - Remover: MR® 79, MR® 85, MR® 88
  - Developer: MR® 70
- System IIAe
  - Remover: Water
  - Developer: MR® 70
- System IICe
  - Remover: MR® 79, MR® 85, MR® 88
  - Developer: MR® 70
- System IIEe
  - Remover: Water, MR® 79, MR® 85, MR® 88
  - Developer: MR® 70
- Low content of halogens and sulphur according to DIN EN ISO 3452:2006-2:2006 and ASME Code V, Section V, Article 6, T-641
- In correspondence with Lloyd's Register of Shipping, Bureau Veritas, Bureau Central Hollandais, Germanyscher Loyd, MIL-I-25135/QPL-25135, AMS 2644, ASME Boiler and Pressure Vessel, ASTM E165 and ASTM E1417
- Art. 6, T-641
  
- ASTM E165/07-12
- ASTM E1417
- RCC-M\*
- ASTM D516/09-11

\* RCC-M: With in the certificate 3.1. mentioned values (measuring method acc. to EN ISO 3452-2) the product meets RCC-M requirements acc. to chapter 3 FE 6400  
"Prescriptions relatives aux agents de pollution" (Limit Cl+S < 200 ppm).

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*\*\*Technical changes reserved!\*\**

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## Application:

- Remove tinder, rust and other contaminations from surface in a suitable manner. A possible precleaner for removal of oils or fats is e.g. our remover MR® 79.
- Penetrant foam:  
Spray MR® 67 PS Penetrant red and fluorescent penetrant foam on the part to be tested. Spray at an angle, with nozzle facing downwards. The active foam breaks down and wets the test surface. Allow to penetrate for at least 5 minutes.
- Aerosol compressed air:  
Spray MR® 67 DL Penetrant red and fluorescent penetrant foam on the part to be tested. Allow to penetrate for at least 5 minutes.
- Bulk:  
Apply MR® 67 Penetrant red and fluorescent to the part to be tested either by spraying, brushing, flooding or dipping. Allow to penetrate for at least 5 minutes.
- Remove excess penetrant from surface either using water or a clean lint-free cloth lightly moistened with an MR® Remover.
- Spray MR® Developer from a distance of approx. 20 cm on the dry surface, achieving a thin, uniform layer. Surface defects will appear as red indications. Please note: If the developer layer is too thick tiny discontinuities will not appear through the developer.

## Minimum shelf life:

- Will keep for a minimum of 2 years, stored at room temperature. Protect against frost!

## Pack sizes:

- MR® 67 PS Penetrant foam:  
Aerosols, 250 ml (1 box contains 20 aerosols)
- MR® 67 Bulk:  
5 L, 30 L, 200 L
- MR® 67 DL Aerosol:  
Aerosols, 300 g (active substance!) (1 box contains 12 aerosols)

→ **The advantage of aerosols with the propellant compressed-air is that at a netto product volume of 300 ml they contain approx. 30-40 % more usable test medium than a 500 ml aerosol with propellant propane/butane.**



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## Biodegradability

### General:

MR® 67 Penetrant red and fluorescent was tested regarding biodegradability by an independent institute, using the "Zahn-Wellens" method.

### Result:

- The wash water containing MR® 67 Penetrant red and fluorescent is 93 % biodegradable if it contains max. 1 % of pure MR® 67 Penetrant red and fluorescent.

### Our customers' advantages:

- Once the local operator of the purification plant grants permission, the wash water from excess penetrant removal may be lead into the drains.
- The mixing with further waste waters which may occur in your house needs additional examination prior to discharge of sewage!
- Waste water treatment can be dispensed with, thereby reducing costs.

### Our recommendation:

- Ask for a copy of the test report and further documentation for presentation at your local operator of the purification plant!

We shall be pleased to assist you.