



# Magnetic Particle Inspection

Product information

MR<sup>®</sup> 221 GF Magnetic powder suspension

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

TO SEE MORE!

## MR<sup>®</sup> 221 GF Magnetic powder suspension

black, ready for use

for magnetic particle inspection according to EN ISO 9934-1

### General appearance and composition:

- magnetic powder suspension with black ferromagnetic particles
- water based
- high sensitivity
- includes corrosion inhibitor and other additives
- free of nitrite, halogene, silicone
- medium particle size  $d_a = 2,5-5,0 \mu\text{m}$
- Sediment: 0,4 – 0,8 ml/100 ml (1/2 h) acc. to ASTM E 709-01
- overhead sprayable
- VOC-contents < 0,1 %
- no flammable propellants, but compressed air
- no unpleasant odour
- Testing security is guaranteed at work piece temperatures: between +10 °C and +50 °C



### Relevant approvals and specifications

The product is based on MR<sup>®</sup> 221 magnetic powder concentrate. For this the following permissions are available:

- Type testing in accordance to DIN EN ISO 9934 part 2
- the corrosive components of MR<sup>®</sup> 221 are in accordance with EN ISO 9934-2
- Examination of corrosive ingredients according ASME Code V, Art. 7, T-731
- In correspondence with Lloyd's Reg., Bureau Veritas, Det Norske Veritas, admitted by Framatome ANP

### Application:

- remove fat and oil (e.g with MR<sup>®</sup> 71 Paint Remover) as well as tinder, rust and other contaminations from surface in a suitable manner
- for a good contrast spray a thin film MR 72<sup>®</sup> White contrast paint (alternatively MR<sup>®</sup> 721 White contrast paint, aqueous), layer thickness max. 40  $\mu\text{m}$ , on the surface
- during magnetization (e.g. with a MR<sup>®</sup> Hand yoke) spray the preparation on the surface
- discontinuities will appear as black magnetic particle indications

### Minimum shelf life:

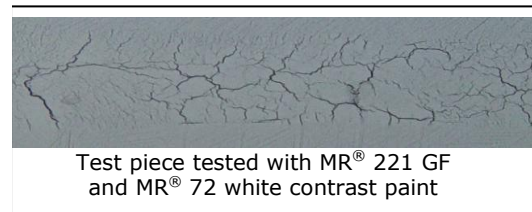
- Aerosols will keep for a minimum of 1 year, stored at room temperature
- Bulks will keep for a minimum of 1 year, stored at room temperature
- Protect against frost!

### Pack sizes:

- 5 kg
- aerosols 300 g (active substance!)

Also available with the following sediment  
(Pack sizes on request):

Version A: 1,2 – 2,4 ml/100 ml (1 h)



Test piece tested with MR<sup>®</sup> 221 GF  
and MR<sup>®</sup> 72 white contrast paint

→ **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.**

15.07.2014/db

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