



## Nondestructive Testing

Magnetic particle testing acc. to DIN EN ISO 9934-1 / Daylight procedure black/white



### Process description

#### 1. Step:

##### Precleaning with MR<sup>®</sup> Remover

The workpieces resp. the areas of the workpieces which are to be examined must be cleaned thoroughly: rust, scales and other contaminations must be removed with suitable tools, other contaminants (oils, greases, etc.) must be removed from the surface with MR<sup>®</sup> Remover. Before taking the next step please make sure that the surface is completely dry.

#### 2. Step:

##### Application of MR<sup>®</sup> 72 White contrast paint

Now MR<sup>®</sup> 72 White contrast paint may be applied to the prepared workpiece. The white paint shall enhance the contrast between the detection media and the test surface. Spray a thin film MR 72<sup>®</sup> White contrast paint (layer thickness max. 40 µm) on the surface and allow to dry for a few seconds. If the paint film is too thick it will reduce sensitivity, and discontinuities may not be detected.

#### 3. Step:

##### Application MR<sup>®</sup> Magnetic powder fluid spray or suspension, black

Apply the detection media MR<sup>®</sup> Magnetic powder fluid spray or suspension black immediately prior to and during magnetization on the white coated workpiece. The application shall cease before magnetization is terminated. Allow sufficient time for indications to develop before moving the workpiece. Discontinuities will appear as black magnetic particle indications on the white surface.

Magnetization may be achieved by an MR<sup>®</sup> Hand yoke. Please ask for our equipment list!

Indications on a welding seam,  
tested according to  
DIN EN ISO 9934



#### 4. Step:

##### Cleaning the workpiece after testing

After testing and acceptance, if required, remove detecting media from the surface. For MR<sup>®</sup> detection media you can use e.g. MR<sup>®</sup> 71 Remover. The white contrast paint and the magnetic powder suspension loosen immediately and flow off the surface with the remover. If necessary, repeat the step.

MR<sup>®</sup> 72 and MR<sup>®</sup> 76 S meet the requirements of DIN EN ISO 9934-2 and ASME Codes, Section V, Article 6, T-641. Batch certificates will be provided upon request.

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Please visit our website [www.mr-chemie.de](http://www.mr-chemie.de)

MR<sup>®</sup> Chemie GmbH · P.O.Box 3028, D-59414 Unna · Nordstr. 61-63, D-59427 Unna  
Tel.: +49 (0)2303 95151-0 · Fax: +49 (0)2303 95151-10 · e-mail: [post@mr-chemie.de](mailto:post@mr-chemie.de)





## Nondestructive testing

Magnetic particle testing acc. to DIN EN ISO 9934-1 / Fluorescent testing



### Process description

#### 1. Step:

##### Precleaning with MR<sup>®</sup> Remover

The workpieces resp. the areas of the workpieces which are to be examined must be cleaned thoroughly: rust, scales and other contaminations must be removed with suitable tools, other contaminants (oils, greases, etc.) must be removed from the surface with MR<sup>®</sup> Remover. Before taking the next step please make sure that the surface is completely dry.

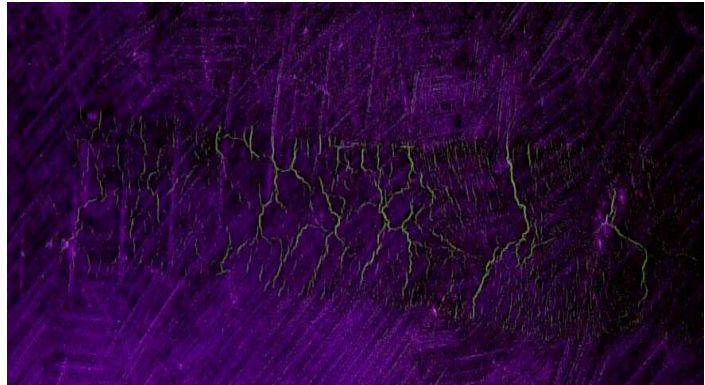
#### 2. Step:

##### Application MR<sup>®</sup> Magnetic powder fluid spray or suspension, fluorescent

Apply the detection media MR<sup>®</sup> Magnetic powder fluid spray or suspension fluorescent immediately prior to and during magnetization on the workpiece. The application shall cease before magnetization is terminated. Allow sufficient time for indications to develop before moving the workpiece. Under UV-light (e.g. MR<sup>®</sup> UV-Hand lamp), discontinuities will appear as yellow-green fluorescent magnetic particle indications on the surface (observe viewing conditions according to the standard!).

Magnetization may be achieved by an MR<sup>®</sup> Hand yoke. Please ask for our equipment list!

Indications on a load hook and a welding seam,  
tested according to DIN EN ISO 9934-1



#### 3. Step:

##### Cleaning the workpiece after testing

After testing and acceptance, if required, remove detecting media from the surface. For MR<sup>®</sup> detection media you can use e.g. MR<sup>®</sup> 71 Remover.

MR<sup>®</sup> 76 F und MR 158 meet the requirements of DIN EN ISO 9934-2 and ASME Codes, Section V, Article 6, T-641. Batch certificates will be provided upon request.

