



PENETRANT TESTING

Red/White with daylight

Fluorescent with UV light



1. Pre-Cleaning

MR® 79, 85, 88, 411, 3001, 3010

Mechanic or chemical preparation and precleaning: clean the test area (remove tinder, rust and other contaminations like oil and fat, etc.). Cracks must be open to the surface.



Drying



2. Penetrant

MR® 67 PS, 68 NF, 68 C, 311-R

Water washable and/or solvent removable penetrant
penetration time between 5 and 60 minutes

Application: spraying, brushing, flooding, dipping.

MR® 670 F, 671 F, 672 F

Water washable penetrant
penetration time between 5 and 60 minutes

Application: spraying, brushing, flooding, dipping.



3. Excess penetrant removal

using MR® 67 PS:

Remove with water
Water pressure \leq 2 bar,
temperature \leq 50 °C

using MR® 68 NF, 68 C, 311-R:

Remove with water and/or solvents
(e.g. MR® 79, 85, 88)
Water pressure \leq 2 bar
temperature \leq 50 °C

using MR® 670 F, 671 F, 672 F:

Remove with water
Water pressure \leq 2 bar,
temperature \leq 50 °C



Control of excess penetrant removal regarding penetrant residues



Daylight

UV light \geq 300 μ W/cm²

Drying



4. Developing

MR® 70, 703 W

Wet developer solvent based (MR® 70)
or wet developer water based (MR® 703 W)

MR® 70, 81 T, 703 W

Dry developer powder (MR® 81 T)
or wet developer solvent based (MR® 70)
or wet developer water based (MR® 703 W)

Drying when using wet developers



**Monitoring the developing process
(duration 10 to 30 minutes)**



5. Inspection

Daylight

Daylight or synthetic light
illumination on surface
min. 500 lux

UV light

illumination on surface
min. 1.000 μ W/cm²
darkened room with max. 20 lux

Recording, if necessary: postcleaning and protection

Your partner in NDT! – www.mr-chemie.de

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