



Penetrant Testing

Product information

MR[®] 313 DL - MR[®] 313 Penetrant red



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water based, no declaration of hazardous ingredients
for penetrant testing acc. to EN ISO 3452-1:2013

Product properties / advantages:

- Water and solvent removable red penetrant, type II acc. to EN ISO 3452-1:2013
- Signal red colour
- **Water based**
- Brilliant wetting
- NO AZO-dye
- **None hazardous material**
- Very good biodegradability acc. to EN ISO 9888*)
- Environmentally friendly application
- Testing security is guaranteed at work piece temperatures between +10 °C and +50 °C
- Suitable for metals, plastics and ceramics (suitability for ceramics needs testing prior to use)
- Agent without VOC
- **Without flammable propellant, but compressed air (MR[®] 313 DL)**
- Very good washability, good removability from skin
- Aerosol overhead sprayable

Relevant approvals and specifications

- Sample testing acc. to EN ISO 3452-2:2006
- Sensitivity class 2 acc. to EN ISO 3452-2:2006,
System IIAC
 - Remover: Water
 - Developer: MR[®] 703 WSystem II Ae
 - Remover: Water
 - Developer: MR[®] 70System II Ce
 - Remover: MR[®] 85, MR[®] 88
 - Developer: MR[®] 70System II Ee
 - Zwischenreiniger: Wasser, MR[®] 85
 - Entwickler: MR[®] 70
- Low content of halogens and sulphur according to EN ISO 3452:2006-2 and ASME Code V, Section V, Article 6, T-641
- In correspondence with Lloyd's Reg., Bureau Veritas, Det Norske Veritas, admitted by Framatome ANP

Application:

- Remove tinder, rust and other contaminations from surface in a suitable manner. A possible pre-cleaner for removal of oils or fats is e.g. our remover MR[®] 79.
- Compressed air aerosol:
Spray MR[®] 313 DL Penetrant red on the part to be tested. Allow to penetrate for at least 5 minutes.



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- Bulk:
Apply MR[®] 313 Penetrant red 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 (MR[®] 70 or MR[®] 703 W) from a distance of approx. 20 cm on the dry surface, achieving a thin, uniform layer. Surface defects will appear as red indications.

Minimum shelf life:

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

Pack sizes:

- MR[®] 313 Bulk:
5 L, 30 L, 200 L
- MR[®] 313 DL compressed air 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.

Biodegradability

General:

MR[®] 313 DL / MR[®] 313 Penetrant red was tested regarding biodegradability by an independent institute, using the "Zahn-Wellens" method.

Result:

- The wash water containing **MR[®] 313 DL / MR[®] 313 Penetrant red** is **99 %** biodegradable if it contains max. 1 % of pure **MR[®] 313 DL / MR[®] 313 Penetrant red**.

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.