MR® CHEMIE
NDT-MATERIALS

Powered by 3AK

Dye Penetrant Testing

Product Data Sheet

MR®67

SOLVENT & WATER WASHABLE PENETRANT

(Red & Fluorescent)

ECO-LINE

The Method

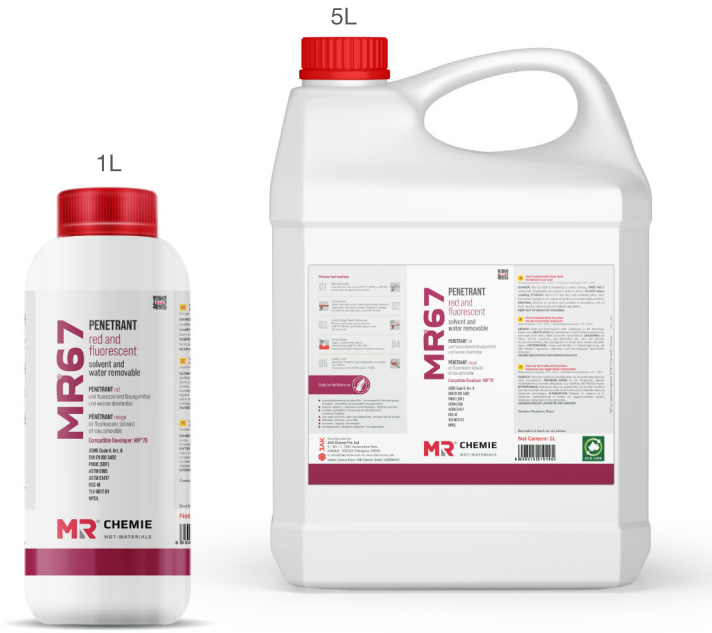
Dye penetrant testing (DPT) is a non-destructive inspection method used to detect surface flaws in materials. The process begins with surface cleaning to remove contaminants. A penetrant dye is then applied, allowed time to seep into any surface defects, and excess dye is removed. A developer is then applied, drawing the penetrant out of the flaws, making them visible against the background. The inspection can be conducted under UV light or with a contrasting colored dye, enhancing visibility. This method is effective for detecting cracks, porosity, and other defects in non-porous materials like metals, plastics, and ceramics. DPT is widely used in industries such as aerospace, automotive, and manufacturing for quality assurance purposes.

Description

MR®67 is a first of a kind eco-friendly; Ultra-sensitive, Solvent and water washable penetrant designed for non-destructive testing (NDT) applications, boasting the Ecoline label for its environmentally conscious formulation. This penetrant offers exceptional sensitivity in flaw detection while being easily removable with both solvents and water, minimising environmental impact.

As an Ecoline product, MR®67 prioritizes sustainability without compromising on performance. It efficiently detects surface flaws in various materials, including metals, plastics, ceramics, and composites. Its low toxicity and reduced environmental footprint make it suitable for use in eco-sensitive areas.

MR®67's eco-line label signifies its commitment to environmental responsibility, making it a preferred choice for industries striving to minimize their ecological impact. With its reliable performance and eco-friendly credentials, MR®67 exemplifies the balance between effective flaw detection and environmental sustainability in NDT processes.



Benefits

- Reliable, easy to use
- Easy removability of excess penetrant using water
- Vivid colour contrast for clear indications
- Versatility across various materials
- Enhances quality assurance processes
- Meets and exceeds most industry standards

Features

- Eco-Line
- Biodegradable
- Visible & Fluorescent
- Solvent & Water washable
- Sensitivity Level 2
- Controlled/Optimal Bleed-out
- Instant Indications
- Over-wash resistance
- Low Surface Tension for quick penetration
- Excellent Surface Wetting
- Very Low odour
- Free of all solvents

Applications

Defect Location: Surface Cracks

Test Surface Type: Super-finished to unfinished

Defect Types:

- Cracks
- Leaks
- Undercutting
- Slag inclusions
- Flux inclusions
- Weld porosity
- Incomplete weld penetration
- Incomplete weld fusion

Usage Instructions

NDT Method	Dye Penetrant Testing, visible & fluorescent
Type	Type II & III
Method(s)	A / C / E
Sensitivity level (ISO 3452)	2
Recommended Usage	+5°C to +100°C 41°F to 212°F

Compliances

ASME Code V. Art. 6

DIN EN ISO 3452

PMUC (EDF)

ASTM E165

ASTM E1417

RCC-M

TLV 9017 01

NPCIL

Physical & Chemical Properties

Appearance	Dark pink liquid
Chemical Composition	Dye, Solvent-free media
Basis	Solvent-free
Colour in visible light	Bright Pink
Colour in UV light	Orange
Odour	No odour
Flash Point (Slurry)	> 93°C / 200°F
Density	1.024 g/cm3

Suggested Products

MR®79 - Special Cleaner (Non-Aqueous)
MR®85 - Remover (Non-Aqueous)
MR®70 - Developer (Non-Aqueous)

Safety

Dye Penetrant Inspection (DPI) is generally safe when conducted by trained professionals who follow appropriate safety measures.

Wear the appropriate safety gears while using the product. Use in a well-ventilated area.

Please read the Material Safety Data Sheet before use!
(Available at: https://www.3akchemie.com/resources-mrchemie)

Scan To Download
TDS / MSDS / TC

Ingredients: Propylene Glycol, Non-Azo Dye

Storage Temperature: 41°F to 113°F / +5°C to +45°C

Notice

3AK Chemie makes no warranties expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining whether our product is fit for a particular purpose and suitable for users method of application.

Limitation of Remedies & Liabilities

If this product is proved to be defective, the exclusive remedy at 3AK CHEMIE's option shall be to refund the purchase price or to repair or to replace the defective MR® CHEMIE product. The company shall not otherwise be liable for loss or damages, whether direct or indirect, special, incidental or consequential regardless of the legal theory asserted including negligence, warranty or strict liability.

Packaging & Order Instructions

SKU	Pack Size	Case
2511-0042	Bulk- 1L	6
2511-0070	Bulk- 5L	-

3AK

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