



Dye Penetrant Testing

Product Data Sheet

MR[®]62

SOLVENT REMOVABLE PENETRANT - RED

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[®]62 is a high-quality solvent removable dye penetrant designed for non-destructive testing applications. Its low surface tension enables deep penetration into surface-breaking defects, ensuring thorough inspection. After application, excess penetrant is easily removed, leaving behind clear indications of flaws. MR[®]62 is suitable for use on a variety of non-porous materials, including metals, plastics, and ceramics. Its vivid classic red colour contrast enhances visibility during inspection, allowing for accurate flaw detection due to its optimal bleed-out. This versatile solvent removable penetrant meets industry standards for reliability and performance, making it an ideal choice for quality assurance in aerospace, automotive, and manufacturing sectors to inspect welds, forgings, pressure vessels, castings, general metalwork and leak testing applications.

MR[®]62 is listed on QPL-AMS-2644.



Benefits

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

Features

- Sensitivity Level 2
- Controlled/Optimal Bleed-out
- Instant Indications
- Low Surface Tension for quick penetration
- Excellent Surface Wetting
- Low-odour
- NPE free. Contains no aromatic compounds.
- Low-toxicity

Applications

Defect Location: Surface Cracks

Test Surface Type: Super-finished to semi-finished

Defect Types:

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

Usage Instructions

NDT Method	Dye Penetrant Testing, visible
Type	Type II
Method(s)	B / C / D
Sensitivity level (ISO 3452)	2
Recommended Usage	+5°C to +52°C 41°F to 125°F

Compliances

QPL SAE AMS 2644

ASME Code V, Art. 6

DIN EN ISO 3452

ASTM E165

ASTM E1417

RCC-M

ASME

NPCIL

Physical & Chemical Properties

Appearance	Dark red oily liquid
Chemical Composition	Red Dye, Oil & Additives
Basis	Hydrocarbon
Colour in visible light	Red
Colour in UV light	Non-fluorescence
Odour	Characteristic
Flash Point (Slurry)	> 93°C / 200°F
Density	0.880 g/cm ³

Suggested Products

MR[®]79 - Special Cleaner (Non-Aqueous)

MR[®]85 - Remover (Non-Aqueous)

MR[®]70I - 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>)

Ingredients: White Mineral Oil, Red Dye

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

Scan To Download
TDS / MSDS / TC



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
2511-0003	Aerosol - 400ml	10
2511-0041	Bulk- 1L	6
2511-0069	Bulk - 5L	-



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