

RED-MARK R-3B(NT)/1 AMS2644 Qualified Water-Washable Dye Penetrant

R-3B (NT) /1 is a water-washable visible dye penetrant approved to AMS 2644.

Water-washable dye penetrant testing enables easy removal of penetrant using water, making it suitable for components with rough surface finishes, complex geometries that are difficult to wipe with solvent removers, and penetrant trapped in holes or cavities. Cleaning can be performed either automatically or manually using a water spray. Except for plastics and porous materials, it provides clear red-on-white contrast indications for reliable detection of flaws on a wide range of inspection objects.

It enables highly reliable defect detection for preventive maintenance and quality inspection during manufacturing. It is widely used for weld inspection, maintenance applications, castings and forgings, large components, and aircraft parts. For use, it is recommended to combine with the developer R-1S (NT) /1, which is also approved to AMS 2644.

R-3B (NT) /1 is listed in QPL/QPD AMS 2644 as Type II (visible dye), Methods A and C (water-washable and solvent removable), and corresponds to Type II (visible dye), Methods A and C (water-washable and solvent removable) in JIS Z 2343.

■ FEATURES

- Detects bright red defect indications with high color clarity in simple steps.
- Excellent wettability, quickly covering the test surface.
- Qualified by the U.S. Air Force under AMS standards, making it applicable to a wide range of materials, including aviation-related uses.
- Excellent water-washability.

■ PROPERTIES

Color	Dark red Liquid
Odor	Petroleum odor
flash point	> 200°F / > 93°C
viscosity	8.0 cSt
Japanese Fire Service Act classification	Class 4 and Class 3 Petroleum (non-water-soluble)

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■ SPECIFICATION CONFORMANCE

- EN-ISO 3452-2
- JIS Z 2343-2
- AMS 2644
- ASTM E 1417
- ASME B&PV Code, Sec.V

* Please contact us regarding compliance to the latest standards and standards not listed in this TDS.

■ APPLICATIONS

- Welds
- Castings
- Forgings
- Pressure vessels
- Aerospace alloys

■ SPECIFICATION

How to Use →



NDT Method	Penetrant Testing (PT) / Water-Washable Dye Penetrant
Type	Type II (Dye)
Method	A, C (Water-washable, Solvent-removable)
Sensitivity Level	JIS Z 2343-2 Sensitivity Level 2
Storage Temperature	40°F~104°F / 5°C~40°C
Usage Temperature	40°F~125°F / 5°C~52°C
Quality assurance period	3 years from the manufacturing date
Disposal	Dispose empty can in a safe manner in accordance with local/national regulations.



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■ CONTAINER

Can Type: 3.8 L and 18 L Can, 200 L drum

■ SERVICE/CONTACT

Please be sure to read the SDS (Safety Data Sheet) before use.

Please download the SDS from our website or contact our nearest sales office or distributor.

For other inquiries about our products, please contact our nearest sales office

Contact us →

