

RP20

Water-washable Visible Penetrant



BYCOTEST® RP20 is a water-washable visible penetrant that is also post-emulsifiable for greater resolution of flaw indications. It produces a visible red colour contrast, and features outstanding penetrating characteristics.

RP20 offers maximum reliability in locating surface-open flaws and discontinuities, and can be used on non-porous ceramics and similar materials.

BENEFITS

Dependable and convenient to use

- Easy to carry and use in the field with the convenient aerosol cans which are carefully designed for consistent, even coverage and maximum test area coverage.
- Use in all conditions without the need for darkness or UV lights
- Quickly and completely covers the entire test surface due to high surface wetting

Maximum indication detection

Produces strong, vibrant indications thanks to the bright, vibrant red colour, especially when used with SKD-S2 solvent-based developer.

Maximise operator comfort and safety

Promotes better inspection quality by providing the operator with a more comfortable work environment

FEATURES

- Outstanding penetrating characteristics
- Vivid, high-contrast color
- Superior flaw resolution
- Wide range of applications
- Excellent controlled washability over a wide temperature range and variable dwell times.

APPLICATIONS

Defect location: open to surface

Ideal for:

- Castings
- Forgings
- Welds
- Pressure vessels
- Tubular goods
- General metal work
- Leak testing
- Use in power plants
- Construction applications

Ideal for:

- Cracks
- Leaks

NOTE: we do not recommend RP20 for inspecting plastic materials, as it may stain, soften or even dissolve the base material under test.

SPECIFICATION COMPLIANCE

- ASME B & PV Code, Sec V
- ASTM E165/E165M-18
- EN ISO 3452-2 (Sensitivity Level 2)

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COMPOSITION

A blend of petroleum distillates, non-ionic surfactants and an oil-soluble organic red dye.

PRODUCT PROPERTIES

Form and colour	Red liquid
AMS 2644 class	Type 2, Method B/C/D
Flash point	63°C (bulk product)
Density	0.83 g/cm ³
Viscosity	3.8 mm ² /s
Sulphur content	< 200 ppm
Chloride content	< 200 ppm

Like all Magnaflux materials, RP20 is closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

USER RECOMMENDATIONS

NDT Method	Penetrant Testing, Visible
Storage temperature	10°C to 30°C
Usage temperature	5°C to 55°C (bulk) -5°C to 50°C (aerosol)
Coverage	20 - 30m ² per litre 10 - 15m ² per aerosol
Cleaner/remover	C5, C10, SKC-S
Hydrophilic emulsifier	ZR-10C
Solvent-based developer	D30A, D30plus, SKD-S2
Accessories	Reference test block (part no. 070C001)

INSTRUCTIONS FOR USE

Ensure test part is clean and dry, and free from oil, grease and other contaminants.

Apply penetrant by immersion dip, brush, flow on, conventional or electrostatic spray. Cover the test area completely.

Allow penetration time. Minimum penetration time is 2 to 5 minutes, with 10 minutes being adequate for most situations. Lower temperatures thicken the penetrant and require longer penetration times.

Remove excess surface penetrant with a solvent wipe or by the water-washable method (see diagrams opposite).

A developer is used to maximise sensitivity and provide a white contrasting background against which red indications can easily be seen. We recommend using a solvent-based developer, as it will be quick-drying and can be applied by spraying.

Ensure the test part is dry and apply a thin layer of the developer. Allow a minimum of 10 minutes development time before inspecting the component under normal daylight conditions. Any indications will appear dark red against the white developer background.

Developer residue can be removed either by wiping with a cloth or by a water and detergent wash. Penetrant residues can be removed by vapour degreasing or solvent soak.

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Solvent wipe method

Clean the component. apply RP20 and allow contact time.



Wipe off excess penetrant with a cloth dampened with cleaner/remover.



Dry component, apply developer and inspect.

Water-washable method

Clean the component. apply RP20 and allow contact time.



Remove excess penetrant with a water spray.



Dry component, apply developer and inspect.

PACKAGING AND PART NUMBERS



008A178 (x 10)



060C076 (x 4)



060C080

HEALTH AND SAFETY

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the Safety Data Sheets, which are available at www.magnaflux.eu