RC-50
POST-EMULSIFIABLE FLUORESCENT PENETRANT

Technical Data Sheet

Approvals and conformities

ASME

DASSAULT AVIATION

EADS

ISO 3452-2

PRATT & WHITNEY

QPD-AMS 2644

SAFRAN

MANUFACTURER : SHERWIN Inc (US) / NDT-Europa (NL)

DESCRIPTION / APPLICATION(S) :

Post-emulsifiable medium sensitivity fluorescent penetrant designed for inspection of critical parts, turbines blades, assemblies, welds. Type 1, methode B, C, D, level 2 according AMS 2644 and ISO 3452-2.

Companion products : Hydrophilic emulsifier ER-83A, ER-83B, ER-83C

Lipophilic emulsifier ER-85

Developer D-90G, D-100, R60, D-106

DIRECTIONS FOR USE

Parts cleaning : use appropriate process/products as per applicable specifications

Application :

By spraying (electrostatic, pneumatic, aerosol), using a brush, or by immersion.

Dwell time :

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10 to 30 minutes, depending on applicable specs. If dipping is used, allow the penetrant to drain from the part surface back to the penetrant tank.

Removal :

Two separate procedures apply:

- with pre-wash

- without pre-wash

Pre-wash :

RC-50 -> Pre-wash -> Hydrophilic emulsifier -> Rinsing -> Drying -> Developer

Conventional post-emulsion method diagram :

RC-50 -> Hydrophilic or lipophilic emulsifier -> Rinsing -> Drying -> Developer.

The first process will save considerable quantities of emulsifier. The emulsifier is applied by immersion or by spraying (see technical datasheet ER-83A, ER-83B, ER-83C or ER-85).

Rinsing off :

Use coarse plain water spray to remove all traces of emulsified penetrant Air + water spray gun is a good alternative. Washing is carried out under UV-A radiation, so as to ensure that no fluorescent background is left.

Drying :

A circulating oven (60 to 80°C) is suggested; do not use compressed air. Infrared lamps and/or air guns are not advisable.

Development :

Although RC-50 is self-developing, using a developer enhances indications.

Inspection :

Inspect parts under appropriate UV-A lighting (mini 1000 W/cm²,if possible >1500 W/cm²) and dimmed visible light (less than 20 lux).

TECHNICAL CHARACTERISTICS

- Very low halogen and sulfur content.
- Compatible with all metals, ceramics, and certain synthetic substances.

Appearance ..... green liquid
Fluorescence ..... green-yellow
Flash point ..... > 93°C
Viscosity ..... 4,4 mm²/s Â± 10 % at 38°C

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PRECAUTIONS FOR USE AND STORAGE

Transport / Handling : Refer to Material Safety Data Sheet (MSDS).

Storage : Keep away from moisture

Temperature range : 0°C à 50° C.

Keep packaging closed after taking out some of the product

This technical data sheet replaces and cancels the previous one.

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