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TECHNICAL DATA SHEET

Ref: RC 77

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Rev: 1 Date: 05/05



MANUFACTURER : SHERWIN (USA)/NDT Europa (NL)
DISTRIBUTOR: NDT Consultants Limited (UK)

DESCRIPTION / APPLICATIONS:

Post-emulsifiable high sensitivity fluorescent penetrant designed for inspection of critical parts, turbines blades, assemblies, welds.

COMPANION PRODUCTS:

ER 83 A hydrophilic emulsifier
ER 85 lipophilic emulsifier
D90G, D 100 developers

SPECIFICATIONS / STANDARDS:

AMS 2644-QPL-1-listed
Type 1 method B, C, D, level IV
AIRBUS-EADS: type I, method B and D, level IV
GENERAL ELECTRIC: class H
PRATT & WHITNEY: FPM ultra high sensitivity (code 7)
ALLISON: level 4
ROLLS ROYCE: RPS 702 group 3Overhaul TSD 594 Op 210 Derby lab ultra high sensitivity
TURBOMECA: class P3
MTU: 83/299
SNECMA: sensitivity S4 DMC 0010
DASSAULT: type I, method B, level IV
CFMI : Standard Practices Manual, 70-32-15 page 5

PHYSICO-CHEMICAL PROPERTIES:

Aspect: green liquid
Fluorescence: green-yellow
Flash point: > 93°C (>200°F)
Viscosity: 8.9 mm²/s ± 10 % at 38°C
-Very low halogen and sulfur content.
-Compatible with all metals, ceramics, and certain synthetic substances.

PACKAGING / SHIPPING / STORAGE:

Packaging:

1-, 5-, and 10-liter canisters.
60-liter drum.
200-liter drum.
300-ml spray can.

Shipping / Handling: refer to MSDS

Storage / Shelflife: keep away from moisture
Temperature limit : 0 to 50° C.

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Keep packaging closed after taking out some of the product.
Canister / drum: 48 months.
Spray can: 48 months.
Shelf life: 48 months

INSTRUCTIONS:

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

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

Dwell time: 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 77 ∅ Pre-wash ∅ Hydrophilic emulsifier ∅ Rinsing ∅ Drying ∅ Developer

Conventional post-emulsion method diagram:

RC 77 ∅ 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 83 A 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 ; 140°F to 176°F) is suggested; do not use compressed air. Infrared lamps and/or air guns are not advisable.

Development: Although RC 77 is self-developing, using a developer enhances indications.

Inspection: Inspect parts under appropriate UV-A lighting and dimmed visible light, in accordance with ISO 3059.2001 standard.

HEALTH AND SAFETY: refer to MSDS.

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