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TECHNICAL DATA SHEET

Ref: HM 406

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Rev: 1 Date: 05/05



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

DESCRIPTION / APPLICATIONS:

Level 2 water washable fluorescent penetrant designed for detecting surface defects.

COMPANION PRODUCTS:

DR 60, DR 62 removers
N 120 degreaser / N 106 A,
D 100, D90G developer
R 62 quick-drying developer

SPECIFICATIONS / STANDARDS:

SAE-AMS 2644-QPL 2644-1 approved
Type I Method A level II,
GENERAL ELECTRIC: A, B, C, D
PRATT and WHITNEY: highly sensitive FPM (code 2)
ALLISON: level 2
MTU: 83/298
BOEING, LOCKHEED: in accordance with QPL
MTU MUNCHEN
AIRBUS-EADS

PHYSICO-CHEMICAL PROPERTIES:

Aspect: green liquid
Fluorescence: green-yellow
Flash point: > 93° C.
Viscosity: 5.2 mm²/s ± 10% at 38°C
Water tolerance: 5 %
Very low halogen and sulfur content
Compatible with all metals and certain plastics.
Density: 0.88 ± 10%

PACKAGING / SHIPPING / STORAGE:

Packaging: 1-, 5-, 10-liter canisters
60-liter drum / 200-liter drum
Shipping / Handling: refer to MSDS
Storage / Shelflife: keep away from moisture
Temperature limit: 0 to 50°C. (32° to 120°F)
Keep the packaging closed after taking out some of the product
Canister/Drum: 48 months

INSTRUCTIONS:

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(These describe the basic process, but they may need to be amended by the user to comply with applicable specifications and/or inspection criteria provided by the contracting agency).

1. Application: Apply HM-406 only to clean, dry surfaces by spraying, flowing, brushing or dipping.
2. Dwell-Time: A 10 minute dwell time is suggested, although in many cases five minutes will suffice. When particularly tight cracks are suspected, or the part is especially critical, the dwell time may be extended to 30 minutes, or longer. Do not soak the part. To increase sensitivity, as well as conserve material, allow the penetrant to drain from the part surface back into the penetrant tank.
3. Removal: Use a quick, ambient temperature water wash at tap pressure to rinse HM-406 from the part surface. To avoid washing entrapped penetrant from surface flaws, do not use high water pressures and temperatures, or prolonged washing and scrubbing.
4. Drying: A recirculating oven set no higher than 160°F (71°C) is suggested. Leave part in oven just long enough to evaporate surface moisture. Drying is improved by using pressurized air to disperse and remove as much excess water as possible before placing part in oven.
5. Developing: HM-406 is self developing. Nevertheless it is recommended to use a developer as listed above.
6. Inspection: Inspect parts under appropriate UV-A radiation and dimmed visible light, in accordance with ISO 3059-2001 standard.

HEALTH AND SAFETY: refer to MSDS.

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