



HM-604 FLUORESCENT PENETRANT

Technical Data Sheet

Approvals and conformities

ALLISON ENGINES
ASME
BOEING
DASSAULT AVIATION
EADS
GE
ISO 3452-2
LOCKHEED MARTIN
PRATT & WHITNEY
QPD-AMS 2644
ROLLS ROYCE
SAFRAN

MANUFACTURER: SHERWIN (USA) / NDT-Europa (NL)

DESCRIPTION / APPLICATION(S):

Type 1, method A, level 3, according AMS 2644 and ISO 3452-2, water washable

fluorescent penetrant designed for detecting surface defects.

Very high biodegradability, product free of petroleum distillates.

Companion products: D-100, D-90G, D-106, R60 developers

DIRECTIONS FOR USE

This describes 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. Before any application, it is necessary to remove all stains that could clog the defects with a suitable process.

1/3

12018-07-31F. Héron

Application :

Apply HM-604 only to clean, dry surfaces by spraying, flowing, brushing or dipping. In this case, it may be better to dip parts during 1/3 of contact time and allow the penetrant to drain from the part surface back into the penetrant tank for 2/3 of contact time. Total dwell time: 5 to 30 minutes.

Removal :

Use a ambient temperature water wash at pressure between 30 and 200 kPa, hydraulic or hydropneumatic gun (air pressure between 0,1 and 2 bars according to applicable specification). To avoid washing entrapped penetrant from surface flaws, do not use high water pressures and temperatures, or prolonged washing and scrubbing. Removal is done under UV-A light to be sure there is no more fluorescent background at the end.

Drying :

Circulating warm air (60-80°C). Using pressurized air, infrared lamp or warm air pistol is strongly not recommended.

Developing :

HM-604 is self developing. Nevertheless it is recommended to use a developer as listed above.

Inspection :

It shall be done in a darkened area (visible light level less than 20 lux) and under sufficient UVA light (minimum 1000 µW/cm², if possible more than 1500 µW/cm²). Actinic blue possible.

TECHNICAL CHARACTERISTICS

Very low sulphur and halogens content
Compatible with all metals and certain plastics

BIODEGRADABILITY:

According to the biodegradability test in aerobic and according to OECD 302 B criteria, HM-604 has shown capacities at inherent biodegradability.
The result is positive (biodegradability >70%) but this does not mean that the effluents of HM- 604 can be released into natural environments, however an effluent discharge into water treatment plant is entirely possible: contact the entity managing the wastewater networks in your area.

Appearance green liquid
Fluorescence yellow green
Flash point > 200°C

PRECAUTIONS FOR USE AND STORAGE

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

Storage : Keep away from moisture and day light

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.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.