

**Approvals and conformities**

PMUC (French acronym for : Products and Equipments allowed for use in Powerplants by EDF - French Electricity Bo

**MANUFACTURER : Babb Co (FR)**

**DESCRIPTION / APPLICATION(S) :**

Thixotropic fluorescent penetrant (Level 2) for surface evenness test or fluorescent penetrant testing. HM-3A by itself is listed in many specifications. HM-3A.1THIXO is considered as a special application product.

**Companion products: Surface evenness test**

Cleaners: N120, cleaning rags N120.

Removers: N106A, cleaning rags N106A.

Using any other means may "destabilize" HM-3A.1 THIXO, i.e. may make it liquid.

**Penetrant testing :**

Cleaners: N120, cleaning rags N120.

Removers: N106A, cleaning rags N106A.

Dry powder developer: D-90G

Non aqueous wet dev.: D-100, R60, D-106.

**DIRECTIONS FOR USE****PENETRANT TESTING**

Thoroughly degrease surface with cleaning rags N120 (recommended) or with clean rags moistened with N120. Use a brush, a rag, any convenient means to apply penetrant on the surface to be checked.

**Penetration time:** at least 20 to 30 minutes.

**Excess penetrant removal:** under adequate UV-A lighting. Remove most of the penetrant with clean, dry rags. To complete removal use cleaning rags N106A. Allow 3 to 5 minutes for drying.

**Developer:** follow respective technical data sheet.

**Inspection:** visible light in inspection area shall be less than 20 lux, UV-A irradiance at least 10 W/m<sup>2</sup> (if possible at least 15 W/m<sup>2</sup>). Viewing conditions stated in ISO 3059 should be met.

**SURFACE EVENNESS TESTING**

Vanes, flap valves tightness.

All surfaces which come in contact with each other shall be first degreased (with cleaning rags N120 preferably, or cleaning rags N106A) then allowed for drying. Be sure no fluorescent indication (coming from white rags for instance) is visible. Apply a very thin coat of HM-3A.1THIXO, with a rag for instance, on the mobile part of the equipment. Using UV-A light or actinic blue light, check all the surface to be checked is covered. Striations appearing just after application fade after a few minutes; wait for this 'selfleveling' of the layer before proceeding with the operation of surface evenness.

Put mobile part and non mobile part in contact for some seconds. Do not allow any rotation.

Pull back mobile part. HM-3A.1THIXO lets a fluorescent mark on the surface of the stationary part which came in contact with the mobile part's.

Check for any mark missing using UV-A lighting (15W/m<sup>2</sup> minimum, low visible light level) or with actinic blue light. Viewing conditions stated in ISO 3059 should be met.

Final cleaning may be carried out using cleaning rags N120, cleaning rags N106A, or water if allowed.

## **TECHNICAL CHARACTERISTICS**

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Very low halogens and sulphur content.

Compatible with any metal and ceramics, and some synthetic materials.

Appearance . . . . . gel-like

Fluorescence . . . . . green-yellow

Flash point . . . . . > 93°C

Viscosity . . . . . very high, but highly lowered when stirred

## **PRECAUTIONS FOR USE AND STORAGE**

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**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.**