AQUA-CHEK™ WB-100 FLUORESCENT, WATER-BASE PENETRANT

Method A, Level 1 Fluorescent Penetrant, AMS-2644 Listed

DUBL-CHEK PENETRANT PROCESS

PRODUCT INFORMATION

Description: **Aqua-Chek™ WB-100** is a free-rinsing, water-washable, bio-degradable, water-base fluorescent penetrant. Virtually "sulfur and halogen free." Flash point over 300°F. OSHA Class IIIB material. It is supplied either in ready-to-use form or as a "concentrate." **Aqua-Chek™ WB-100** is a USAF approved AMS-2644 Level 1 (moderate sensitivity), Method A (water-washable) Fluorescent penetrant and so listed on AMS-2644.

Special Features:

1. **WB-100** is shipped either in ready-to-use form, or as a concentrate and mixed by the user with water. When supplied as a concentrate shipping and material costs are lower; storage requirements are lessened. As a concentrate the product is designated as **WB-100C**.
2. **WB-100** contains no oil or petroleum distillates. Waste treatment and disposal costs are reduced. Resources are conserved.
3. As a concentrate, **WB-100** has a flash point over 148°C (300°F), an OSHA Class IIIB material. When mixed with 50% water, **WB-100** is practically non-combustible.
4. **WB-100** has exceptional self-developing properties.

Companion Materials:
Sherwin **D-90G.1** Dry Powder Developer (form a)
Sherwin **D-100** Nonaqueous Developer (form d)
Sherwin **D-106** Nonaqueous Developer (form d)
Sherwin **D-110A.1** Water-suspendable (form c)
equivalent AMS-2644 developers

Container Sizes:
one-gallon cans
case of 4 one-gallon cans
five-gallon pail
55-gallon drum

Basic Instructions: (These instructions describe the basic process. They may need to be amended by the user to comply with applicable specifications and/or inspection criteria provided by the contracting agency.)

1. **Mixing:** Mix **Aqua-Chek™ WB-100C** concentrate with equal parts by volume of water. Deionized water is preferred but not required. Adding the concentrate slowly to the water while stirring is the more efficient mixing method.
2. **Application:** Apply a thin coat of **WB-100** to clean, dry surfaces by spraying, flowing, brushing or dipping.
3. **Dwell-Time:** A 10 minute, or longer, dwell time is mandatory. Allow the penetrant to drain from the part. This not only conserves material, it improves performance.
4. **Removal:** Use a quick, ambient temperature water wash at 30-40 p.s.i. to rinse **WB-100** from the part surface. Avoid washing entrapped penetrant from surface flaws; avoid high water pressures and temperatures; avoid prolonged washing and scrubbing. Wash under black light.
5. **Drying:** Begin drying procedure immediately after the water wash; do **not** allow water to stand or puddle on the part's surface. Use pressurized air to disperse and remove as much excess surface water as possible before placing part in oven. Place part in a recirculating oven set no higher than 160°F (71°C) — just long enough to evaporate surface moisture. Use a heat gun to dry parts too large to fit in oven; avoid overheating.
6. **Developing: WB-100** is self-developing. To amplify flaw marks, or in critical inspection situations, use a developer such as the Sherwin developers listed above. (MIL-STD-6866 requires, and ASTM E-1417 strongly recommends, using a developer.)
7. **Tank Maintenance:** Water evaporation should be anticipated. Evaporation rate will depend on atmospheric conditions and "tank head room." When tank is filled, record refractometer reading, then take periodic readings. As required, add water to restore to original reading.

PRECAUTIONARY INFORMATION
Read MSDS Form For Precautionary Information.

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