



FGP-20

WATER BASED FLUORESCENT FOOD GRADE PENETRANT

Technical Data Sheet

Approvals and conformities

ASME

ISO 3452-2

NSF Nonfood Compounds Program Listed (P1)

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DESCRIPTION / APPLICATION(S):

FGP-20 is a NSF certified Food Grade penetrant, category P1, registration number 150866.

It meets Type 1, level 2, Method A water-washable fluorescent penetrant requirements.

FGP-20 is a versatile, general purpose penetrant for use on a variety of materials, including stainless steel, aluminum and magnesium. Complies with low sulfur and low halogen requirements.

NSF (National Sanitation Foundation) has processed the Registration of FGP-20 to the NSF International Registration Guidelines for Proprietary Substances and Nonfood Compounds. The NSF Nonfood Compounds Registration Program is a continuation of the USDA (United States Department of Agriculture) product approval and listing program, which is based on meeting regulatory requirements including FDA 21 CFR for appropriate use, ingredient and labeling review.

This product is acceptable for use as a penetrant for the detection of cracks, surface breaking flaws and leaks (PI) in and around food processing areas.

The product must only be used in such a manner as to ensure it will have neither direct nor indirect contact with food or potable water. Use must also be consistent with the manufacturer's directions and warnings.

Companion products:

D-90G Dry Powder Developer (form a)

D-100, D-106 Non aqueous Developer (form d)

D-110A.1 Water-suspendable (form c)

DIRECTIONS FOR USE

Note: These instructions describe the basic process, but they may need to be amended by the user to comply with applicable specification and/or inspection criteria provided by the contracting agency.

1. **Application:** Apply FGP-20 only to clean, dry surfaces by spraying, flowing, brushing or

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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. Allow the penetrant to drain from the part surface back into the penetrant tank to conserve material.
3. **Removal:** Use ambient temperature water to rinse FGP-20 from the part surface under UV-A or actinic blue light. To avoid washing entrapped penetrant from surface flaws, do not use high water pressure or temperatures and avoid prolonged washing times.
4. **Drying:** Use a heat gun, ambient evaporation or if appropriate a re-circulating oven, heating temperatures should not exceed 71°C. Heat the part just long enough to evaporate surface moisture. Evaporation is improved by using pressurized air to disperse and remove as much excess water as possible before or during drying.
5. **Inspection:** Inspect parts under appropriate UV-A radiation (mini 1000 $\mu\text{W}/\text{cm}^2$ and if possible higher or equal to 1500 $\mu\text{W}/\text{cm}^2$) and dimmed visible light (< 20lux), in accordance with ISO 3059, A-Blue is also possible.

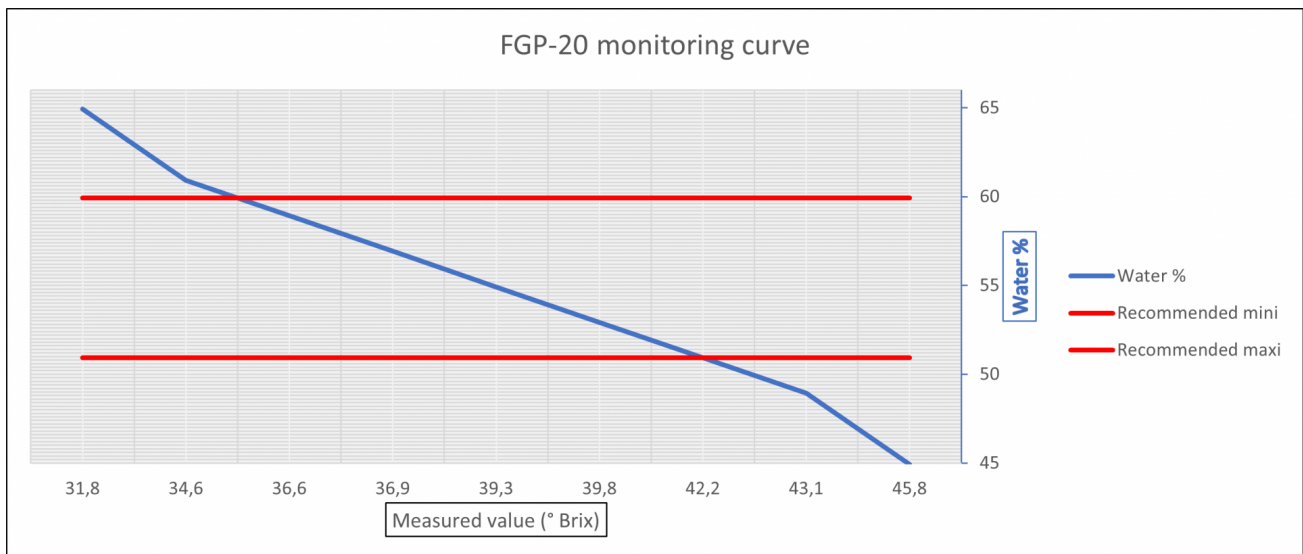
Bath maintenance:

The recommended water content in the bath is 51 to 60%.

Check of the water content of the bath according to ASTM E1417 § 7.8.2.3: this check should preferably be carried out with a digital refractometer with a minimum measuring range of 30 to 50°Brix.

The refractometer must be checked with a standard solution(s) to ensure the consistency of its measurement.

Below is the correlation between the value measured (on a sample of FGP-20 bath) and the water content in the FGP-20:



TECHNICAL CHARACTERISTICS

NSF certified penetrant, category P1

Compatible with any metal and many synthetic materials (composite)

Very low halogen and sulfur content

Colour Yellow

Viscosity 16.0 mm²/s at 38°C

Fluorescence Yellow/green

PRECAUTIONS FOR USE AND STORAGE

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

Storage : Keep away from moisture and sunlight

Temperature range: 0°C à 50°C

Keep packaging closed when not in use

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 BABBCO/SHERWIN BABBCO. 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.