



GP-10

WATER-BASED FLUORESCENT PENETRANT

Technical Data Sheet

Approvals and conformities

ISO 3452-2

MANUFACTURER: NDT Europa (NL)

DESCRIPTION / APPLICATION(S):

Water based fluorescent penetrant designed for detecting surface defects.

Type 1, method A, level 1, according to ISO 3452-2

GP-10 has been specially formulated to reduce penetrant and wash water consumption while maintaining a good level of detection. As a result, operating and wastewater treatment costs are optimized.

Companion products:

D-90G dry developer

D-100, R60, D-106, R764 developers

DIRECTIONS FOR USE

These instructions describes a classic process. It can be modified by the user to comply with specifications and/or inspection criteria provided by the contracting agency.

Preparation of the surface:

Surface must be free of contaminants, even inside flaws. Use adequate methods to remove oxides, paints, oil, water, etc. Allow complete evaporation and wait until return at ambient temperature.

Application of the penetrant:

Apply a thin coat of GP-10 to a clean and dry surface by spraying (pneumatic or electrostatic), flowing, brushing or dipping.

Dwell-Time:

A 10 minute, or longer, dwell time is mandatory. Allow the penetrant to drain from the part.

Removal:

Use a quick, ambient temperature water wash to rinse GP-10 from the part surface. Avoid washing entrapped penetrant from surface flaws; avoid high water pressures and temperatures; avoid prolonged washing and scrubbing. Wash under UV-A light.

Note : The use of a water bath (or water + emulsifier) before the final rinse has shown very good

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v.2 / 2021-12-06 / V. Auzanneau

results with the GP-10. This saves water and limits the amount of penetrant in the final rinse water. Please contact us for more information.

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 70 °C just long enough to evaporate surface moisture. Use a heat gun to dry parts too large to fit in oven; avoid overheating.

Developing:

GP-10 is self-developing. To amplify flaw marks, or in critical inspection situations, use a developer such as the Sherwin developers listed above.

Inspection:

In a UV-A booth, with ambient visible light level less than 20 lux, and with UV-A irradiance of at least 1000 W/cm² (better: 1500 W/cm²) on the surface under inspection. The use of blue light is possible.

Tank Maintenance:

Water evaporation should be anticipated. Evaporation rate will depend on atmospheric conditions, “tank head room”, etc. When tank is filled, record refractometer reading (RCT 0-32), then take periodic readings. As required, add water to restore to original reading. Stay within the content 45-55 %.

TECHNICAL CHARACTERISTICS

Appearance	yellow liquid
Fluorescence	> 65 %
Viscosity	5.0 mm ² /s at 38 °C
Chemical Oxygen Demand (COD)	2100 mg/L at 0.2 %
Biochemical Oxygen Demand (BOD)	800 mg/L at 0.2 %

PRECAUTIONS FOR USE AND STORAGE

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

Storage : Keep away from moisture and daylight, protect from freezing.

Keep packaging closed after taking out some of the product.

Temperature range: 0 °C to 50 °C

This technical data sheet replaces and cancels the previous one.

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