

Technical Data Sheet

SMARTCHECK DYE PEN DEVELOPER

General Description

SMARTCHECK DYE PEN DEVELOPER is a Non-Aqueous Wet Developer used in the Dye Penetrant process to detect surface flaws such as cracks, laps and porosity.

SMARTCHECK DYE PEN DEVELOPER consists of refined white particles suspended in a rapid drying solvent system.

Method of Use

The test surface & ambient temperature shall be within the range from 10°C to 50°C, except for the drying process.

The component to be inspected should be first thoroughly cleaned to remove paint, grease, rust, scale or other contaminants, and then finally cleaned with SMARTCHECK DYE PEN REMOVER.

SMARTCHECK DYE PENETRANT should be applied to the clean, dry area of inspection on the component by spraying, brushing, flowing or dipping. The penetrant should be allowed to dwell for a minimum of 10 minutes. If the dwell time exceeds 2 hours the penetrant should be reapplied.

After sufficient dwell time the excess penetrant should be removed. For the water washable method low pressure water should be used. For the solvent removable method blot with a cloth to remove excess penetrant, then carefully wipe with a cloth that has been moistened with SMARTCHECK DYE PEN REMOVER.

Allow the component to dry. Clean, dry, low pressure compressed air or an air recirculating oven (maximum temperature 70°C) may be used to assist drying.

SMARTCHECK DYE PEN DEVELOPER should be mixed thoroughly before applying by spraying light even coats over the entire area of inspection on the component. 2 or 3 light coats are more effective than a single heavy coat.

Inspect the area immediately and after 10 minutes. Indications will appear as lines or a series of spots.

SMARTCHECK DYE PEN DEVELOPER is easily removed by wiping with a cloth or washing with water.

Typical Properties (Not a specification)

Appearance: White particles suspended in a clear colourless solvent
Density (g/mL): approx. 0.85
Flash Point: -18°C (Bulk) -40°C (Aerosol)

Specifications

SMARTCHECK DYE PEN DEVELOPER conforms to:-

AMS 2644	ASME Code NDT, Section V
ASTM E-1417	ISO 3452-2

Effects on Materials

SMARTCHECK DYE PEN DEVELOPER should not have any adverse effects on steel or most other metals. The product will degrade most plastics and rubbers. Butyl rubber and EPDM should not be affected by SMARTCHECK DYE PEN DEVELOPER however, users are advised to check the compatibility.

Storage

SMARTCHECK DYE PEN DEVELOPER should be stored under good warehousing conditions out of direct sunlight and away from heat sources. The aerosols must be stored below 50°C.

Safety

SMARTCHECK DYE PEN DEVELOPER is flammable. Use with adequate ventilation and away from sources of ignition or intense heat.

Refer to the SDS before using this product.

Packaging & Product Codes

DPDEVA - 300g Aerosols
DPDEV5 - 5 L Drums

Disclaimer

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