

Technical Data Sheet

SMARTCHECK DYE PEN RED

General Description

SMARTCHECK DYE PEN RED is a water washable and solvent removable, red dye penetrant used in the red dye penetrant process to detect surface flaws such as cracks, laps and porosity. SMARTCHECK DYE PEN RED is also suitable for the solvent removable process.

SMARTCHECK DYE PEN RED can be used on non-porous components including metals (both ferrous and non-ferrous), ceramics and some plastics.

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 PEN RED 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. Do not spray SMARTCHECK DYE PEN REMOVER directly on to the component when removing excess penetrant.

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.

Inspect the area in dark room conditions using an ultraviolet light immediately and after 10 minutes. Indications will appear as red lines or a series of spots. Users should refer to the relevant specification for UV lighting requirements.

Typical Properties (Not a specification)

Appearance: Red mobile liquid
Density (g/mL): approx. 0.85
Flash Point: >93°C (Bulk) -40°C (Aerosol)

Specifications

SMARTCHECK DYE PEN RED conforms to:-

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

Effects on Materials

SMARTCHECK DYE PEN RED 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 RED, however, users are advised to check the compatibility.

Storage

SMARTCHECK DYE PEN RED 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 RED is combustible, and the aerosols are 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

DPREDA -300g Aerosols
DPRED5 - 5 L Drums

Disclaimer

The information in this document is provided free of charge and is based on technical data that we believe is accurate and correct. It is intended for use by persons having technical skill and at their own discretion and risk. We accept no liability for any loss, damage or expense arising from the use of this information.

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