

SKL-SP2 SOLVENT REMOVABLE PENETRANT

CLASSIFICATION

- Type 2, Methods B, C and D (Solvent Removable or Post Emulsifiable).

GENERAL DESCRIPTION

SKL-SP2 is a solvent removable (or post emulsifiable) red color contrast penetrant. SKL-SP2 exhibits outstanding penetrating characteristics which provide for maximum reliability in locating surface-open flaws and discontinuities. SKL-SP2 can be used over the entire spectrum of industrial applications where a visible penetrant inspection system meets the requirements for surface-open flaw detection. SKL-SP2 has also been successfully used on non-porous ceramics and similar materials.

Warning! SKL-SP2 is not recommended for the inspection of plastic materials, as it may stain, soften or even dissolve the base material under test.

APPLICATIONS

SKL-SP2 is typically used on welds, forgings, pressure vessels, castings, general metal work, leak testing, and power plant construction.

COMPOSITION

SKL-SP2 is composed of a blend of petroleum distillates, plasticizer, and an oil soluble organic red dye.

TYPICAL PROPERTIES (Not a specification)

| Typical Properties | SKL-SP2 Penetrant |
|--------------------|--------------------------------|
| Color | Deep Red |
| Odor | Bland, Oily |
| Flash Point | 200° F Minimum |
| Corrosion | Meets Requirements of AMS 2644 |
| Density | 0.89 g/ml |
| Viscosity @ 38° C | 3.8 CS |
| Sulfur Content | <300 ppm |
| Chlorine Content | <300 ppm |
| VOC | 675 g/l |
| NPE-Free | Yes |

METHOD OF APPLICATION

Spotcheck® SKL-SP2 may be applied by aerosol, dipping, flowing, brushing, conventional or electrostatic spray.

PENETRATION - DWELL TIME

The generally accepted minimum penetration time is 10 minutes although specific process specifications and applications may require longer penetration time. This minimum dwell time is based on guidelines set forth in ASTM E1417.

TEMPERATURE

SKL-SP2 should be used at temperatures between 40° F – 125° F. This temperature recommendation is based on guidelines set forth in ASTM E1417.

PENETRANT REMOVAL

SKL-SP2 excess surface penetrant can be removed by SKC-S (Method C), ZE-4E (Method B), or ZR-10E (Method D).

RECOMMENDED DEVELOPERS

A developer is used to maximize the sensitivity and to provide a white contrasting background against which the red indications can be readily seen. Two types of developer can be used:

- SKD-S2 and ZP-9F Solvent Developers are quick drying materials which may be applied by spraying. The part under test must be dry before developer application.
- ZP-5B Water Suspensible Developer is a developer which may be applied by dipping. After application, the part under test must be dried before inspection.

SPECIFICATION COMPLIANCE: AMS-2644, AECL, ASME B & PV Code, Sec V, ASTM E1417, MIL-STD 2132, ASTM E165, MIL-STD 271, ISO 3452-2 (Sensitivity Level 2), Boeing PS-21202

PACKAGING

1 Gal. Container (case of 4), 5 Gal. Pail, 55 Gal. Drum, Case of Aerosols

COVERAGE

(1) Gal. covers approximately 1,200 square feet.

(1) 16 fl. oz. aerosol can covers approximately 65 square feet.

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Due to the number and variety of applications for this product it is impossible to make specific process recommendations for all applications. It is the responsibility of the end user to determine the acceptable parameters for their application prior to inspection.