

Product Data Sheet

SPOTCHECK[®]

SKL-SP2 Solvent Removable Penetrant

Classification: Type 2, Methods B, C, and D
(Solvent Removable or Post Emulsifiable)

General Description: Spotcheck 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. *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:

Welds, Forgings, Pressure Vessels, Castings, General Metal Work, Leak Testing, 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):

Color	Deep Red
Odor	Bland, oily
Flash point	93°C minimum
Corrosion:	Meets requirements of AMS 2644
Density:	0.89 g/ml
Viscosity @ 38°C:	3.8 centistokes
Sulfur Content:	Less than 300 ppm
Chloride Content:	Less than 300 ppm

Method of Application:

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

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Penetration/Dwell Time:

The generally accepted minimum penetration time is 10 minutes, although specific process specifications may require longer penetration time.

Temperature:

SKL-SP2 should be used at temperatures between 40° F – 125° F.

Lower temperatures thicken the penetrant and longer penetration times are necessary. High temperatures should be avoided since this can lead to the breakdown of the dye resulting in color fade.

Penetrant Removal:

SKL-SP2 excess surface penetrant can be removed by either SKC-S (Method C) or ZE-4B (Method B) or ZR-10B (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 component under test must be dry before developer application.
- *ZP-5B Water Suspending Developer* is a developer which may be applied by dipping; after application the component 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

Packaging: Case of 4 – one gallon containers, 5 gallon pails, 55 gallon drums, aerosols, penetrant pens

Coverage: 1 gallon covers about 1,200 square feet

1 aerosol can (16 ounce by volume) covers about 65 square feet