

## SKL-WP2 WATER WASHABLE PENETRANT

### CLASSIFICATION

- Type 2, Method A (Water Washable)
- Type 2, Method C (Solvent Removable)

### GENERAL DESCRIPTION

SKL-WP2 is a red visible dye, low odor penetrant which exhibits outstanding penetrating characteristics that provide for increased reliability of discontinuity identification. SKL-WP2's water wash removability in Method A applications eliminates the need for solvent removers or emulsifiers to remove excess surface penetrant.

*Warning! Penetrants attack and even dissolve many kinds of plastic pipe. Polyvinyl chloride (PVC) pipe is especially vulnerable, and can crumble after only a few days of exposure. Even diluted penetrant rinsings attack it rapidly. ABS plastic pipe is nearly as sensitive. When installing plumbing to handle penetrant rinsings, use metal pipe.*

### APPLICATIONS

SKL-WP2 is typically used in the inspection and detection of welds, shrink cracks, casting cracks and porosity.

### COMPOSITION

SKL-WP2 is composed of a blend of non-volatile penetrating oils, surface active agents (emulsifiers) and dye.

### TYPICAL PROPERTIES (Not a specification)

| Typical Properties | SKL-WP2                        |
|--------------------|--------------------------------|
| Color              | Dark Purplish Red              |
| Flash Point        | 200°F Minimum                  |
| Corrosion          | Meets Requirements of AMS 2644 |
| Density            | 7.3 lb/gal @ 60F (0.88gm/cc)   |
| Viscosity @ 38°C   | 7.2 - 8.8 cs                   |
| VOC                | 477 g/l                        |
| NPE-Free           | Yes                            |

**METHOD OF APPLICATION**

SKL-WP2 may be applied by aerosol, dipping, flooding, brushing, or conventional spray.

**PENETRATION - DWELL TIME**

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

**TEMPERATURE**

SKL-WP2 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**

**Method A:** SKL-WP2 is generally removed by water spray. The wash temperature envelope is 50° F to 100° F. (Use of water removal of SKL-WP2 below 32° F is impractical because of freezing.)

**Method C:** SKL-WP2 can be removed by SKC-S solvent cleaner/remover. Moisten a cloth or paper towel with cleaner/remover and wipe excess penetrant from the surface. Do not flood part surface with cleaner/remover as this could impair sensitivity.

**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:** SKD-S2 is quick drying and must be applied by spraying as dipping or brushing will destroy indications. The part under test must be dry before developer application.

**ZP-5B:** ZP-5B is a water suspendible developer which may be applied by dipping. After application, the part under test must be dried before inspection.

**SPECIFICATION COMPLIANCE:** AMS 2644, Boeing PS 21202, MIL-STD-271, ASME B&PV Code, Section V, MIL-STD-2132, NAVSEA 250-1500-1, AECL, ASTM E 165, ASTM E 1417, ISO 3452-2 (Sensitivity Level 2)

**PACKAGING**

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

**COVERAGE**

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

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