



Penetrant Professor Approved

Product Data Sheet
VP-30
Visible Penetrant



Met-L-Chek Company manufactures a complete line of penetrants used in the fluorescent (Type 1) and visible (Type 2) dye penetrant inspection process.

VP-30 is a visible (Type 2), water washable (Method A) and solvent removable (Method C) inspection penetrant. It is designed for use in general metalworking, welding, nuclear and automotive applications for surface flaw and through leak detection.

VP-30 is listed on the Qualified Products List for AMS-2644. It meets the requirements of ASME Boiler and Pressure Vessel Code Section V, ASTM E-165, ASTM E-1417, and ISO-3452 for penetrant inspection materials.

Guide to METHOD "A" processing per ASTM E-1417

Guide to METHOD "C" wipe off processing per ASTM E-1417

- 1. Part must be clean, dry and at a temperature of 4.4°-52°C (40°-125°F) before penetrant is applied.
2. Apply VP-30 penetrant using spray, immersion, or wipe on.
3. Wait a minimum of 10 minutes; 20 minutes if temperature is 4.4°-10°C (40-50°F).
4. Wash part; water temperature 10°-38°C (50°-100 °F).
5. Dry part, time - only long enough to dry surface.
6. Apply non-aqueous developer D-70 by spraying.
7. Wait a minimum of 10 minutes before inspection.
8. Use lighting of 1100 lux/m2 (100 footcandles) minimum.

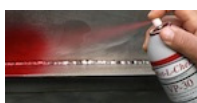
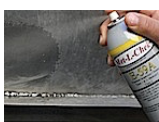
- 1. Part must be clean, dry and at a temperature of 4.4°-52°C (40°-125°F) before penetrant is applied.
2. Apply VP-30 using spray, immersion, or wipe on.
3. Wait a minimum of 10 minutes; 20 minutes if temperature is 4.4°-10°C (40-50°F).
4. Moisten cloth with remover E-59, E-59A, R-503 or R-504 and wipe penetrant from surface.
5. Apply nonaqueous developer D-70, by spraying.
6. Wait a minimum of 10 minutes before inspection.
7. Use lighting of 1100 lux/m2 (100 footcandles) minimum.

Through Leak Method

For through leak testing the penetrant is applied to one side of the component and then developer is applied to the opposite side. Thickness of the component will effect the dwell time which may range from 10 minutes to 2 hours.

Step 1 clean surface Step 2 apply penetrant Step 4 remove penetrant Step 5 apply developer Step 7 inspect

Method "C"





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Typical Physical Properties

Form: red liquid
 Density: 801 g/L
 Flash Point: >62.2°C (>144°F)
 Viscosity: 2.5 mm²/s
 Water Tolerance: > 5%
 Corrosion of aluminum: none
 Corrosion of carbon steel: none
 Corrosion of magnesium: none
 Corrosion of stainless steel: none
 Corrosion of titanium: none
 Chloride content: < 100 ppm (< 0.01%)
 Fluoride content: < 50 ppm (< 0.005%)
 Sulfur content: < 150 ppm (< 0.015%)
 Mercury: none
 VOC's: 533 g/L
 Ozone layer depleting substances: none
 PCB's: none

Product Availability

12 x 400mL(16oz) vol. aerosol net wt 310g (10.9oz)
 6 x 1 pint(0.4L) can with dauber
 1 gallon (3.7L) metal can
 5 gallon (18.9L) metal pail
 55 gallon (208L) metal drum

NSN's

1 gallon 6850-01-267-7989
 5 gallon 6850-01-223-2867

Specifications

- ISO 3452
- AMS 2644
- ASTM E-165
- ASTM E-1417
- MIL-STD-271
- MIL-STD-2132
- RCC-M rev 2000
- Dassault IQ-1-0-1-20
- ASME B&PV Code Section V
- NAVSEA-T9074-AS-GIB-010/271



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