

VP-302

Met-L-Chek® VP-302 is a special application high temperature inspection penetrant. The use range is 51.6°C - 176.6°C.

Commonly used in field weld and weld repair inspection, VP-302 is also used in the inspection of refinery processing equipment at elevated temperatures. Met-L-Chek® VP-302 reduces inspection process time by eliminating the total cool down period required for standard penetrant.



NDT Classification

- Type: 2 – Visible
- Method: C

Available Sizes

- 6 X 1 Pint (0.4 L)
- 1 Gallon (3.7 L)
- 5 Gallon (18.9 L)

NSN Information

- No NSN Numbers

Specifications

- ASME B&PVC Sec V
- ASTM E-1417
- ASTM E-165
- ISO 3452-2
- MIL-I-25135C, Interim AM-4
- NAVSEA-250-1500-1

Typical Physical Properties

Form	Dark red liquid, no sediment.
Density	980 g/L

Use Instructions

Visit www.Met-L-Chek.com to view detailed processing method guides.

Notes Prior to Handling

Before using Met-L-Chek® products, all safety and operating instructions should be read and understood. If you have any questions, please contact your Met-L-Chek® representative before proceeding. For complete health and safety information, refer to the product's Safety Data Sheet. Met-L-Chek® Safety Data Sheets can be requested online at www.Met-L-Chek.com

Penetrant Application

Before proceeding with the use of Met-L-Chek® VP-302, it is important to be sure that the temperature of the part is not too hot. To test this, apply a small amount of penetrant to the area to be tested, and observe it after 10 minutes. If the penetrant has good red color, you may proceed. But if there is any indication of fading, or of the color turning brown, then the part is too hot, and it must be cooled until the penetrant will function properly without color loss. After making this test, the Met-L-Chek® VP-302 penetrant is applied to the hot surface to be tested with a brush or other applicator. At this elevated temperature the penetrant thins and penetrates the flaws rapidly. Penetration time will depend on temperature, but at 93.3°C two to five minutes is usually sufficient for coarse cracks. Penetrant should only be applied to a small portion of the part to be tested at one time to minimize excessive dwell time, which can evaporate part of the penetrant. Inspect a small area at a time and complete the inspection of the area within 10 minutes. Longer dwell time may result in the penetrant not functioning properly.

Removal of Excess Surface Penetrant

Remove excess penetrant with a cloth or paper toweling, then clean the surface with a cloth moistened with Met-L-Chek® R-502 remover. The hot surface will then dry rapidly.

Developer Application

Met-L-Chek® D-702 developer should be agitated and then applied with a pressurized spray gun, such as a paint sprayer or "Sure Shot"™ type sprayer. Apply in a thin even coat, making several passes if necessary. If a paint sprayer is not available, a simple hand pump sprayer, such as is used for household products, and available in supermarkets, may be used, although the developer coat will not be as smooth or uniform. Be careful not to build up a thick coat, since this may mask defect indications. Flaw indications form quickly and appear as red marks on the white developer. After inspection, the Met-L-Chek® D-702 developer coating may be removed by wiping with a cloth moistened with Met-L-Chek® R-502 remover, or by flushing with water.

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Met-L-Chek® manufactures a complete line of Nondestructive Testing materials including penetrants used in fluorescent (Type 1) and visible (Type 2) dye penetrant inspection, wet and dry magnetic particle inspection, and a variety of specialty testing materials.

CAUTION: Before using any of these products, you must become completely familiar with the safety and hazard information contained in our safety data sheets regarding these products. McGean-Rohco, Inc. (the seller) presents the information contained herein without warranty and disclaims any liability from its use or misuse. Seller recommends use of the information Seller's products solely in commercial processes which are specified by Seller and which do not violate any third party patent rights or any laws or regulations. The seller makes no warranties, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose except as expressly stated in the seller's sales contract or sales acknowledgement form.



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