



CONTRAST (RED-WHITE) PENETRANT TESTING

MET-L-CHEK PENETRANT SYSTEMS

MET-L-CHEK penetrant systems are listed on the Qualified Products List for AMS-2644. They are used in nuclear and aerospace industry, welding, general metal working etc. in a temperature range from +5°C to +50°C.

For testing at higher temperature (from 52° C to 177° C) the specially developed VP-302 penetrant is used in combination with D-702 developer and R-502 cleaner.



MET-L-CHEK penetrant systems meet the requirements of AMS-2644E, AMS-2647, ASME Boiler and Pressure Vessel Code Section V, ASTM E165, ASTM E1417, ISO 3452, NAVSEA-T9074-AS-GIB-010/271.

The low content of sulfur and halogens was ascertained and confirmed according to ASTM E165 and ASTM D516, as well as to requirements of KWU and DIN EN ISO 3452.

MET-L-CHEK Penetrants

<i>Product name</i>	<i>Sensitivity level DIN EN ISO 3452-2</i>	<i>Removal method</i>	<i>AMS-2644 OPL</i>	<i>Product Information</i>
<i>MET-L-CHEK VP-30</i>	Level 2 (high sensitivity) <u><i>Delivery form:</i></u> <i>Spray can 400 ml</i> <i>Can 1 L</i> <i>Can 10 L</i> <i>Cask 200 L</i>	A - water washable C - solvent removable Art.No. 121.100.201 Art.No. 121.100.202 Art.No. 121.100.203 Art.No. 121.100.204	yes	One of the most versatile penetrants applied in welding, petrochemical, dairy and food processing, pharmaceutical, nuclear and general metal working.
<i>MET-L-CHEK ROT 1001</i>	Level 2 (high sensitivity) <u><i>Delivery form:</i></u> <i>Spray can 400 ml</i> <i>Can 1 L</i> <i>Can 10 L</i> <i>Cask 200 L</i>	A - water washable C - solvent removable Art.No. 121.100.301 Art.No. 121.100.302 Art.No. 121.100.303 Art.No. 121.100.304	conf.	Red fluorescent penetrant without azo dye for application in welding, nuclear industry, general metal working and food processing.
<i>MET-L-CHEK VBP-300</i>	Level 2 (high sensitivity) <u><i>Delivery form:</i></u> <i>Can 1 L</i> <i>Can 10 L</i> <i>Cask 200 L</i>	A - water washable C - solvent removable Art.No. 121.100.222 Art.No. 121.100.223 Art.No. 121.100.224	yes	Penetrant oil- and solvent-free, biodegradable, V.O.C.-free, environmentally friendly. For use in general metalworking, welding, nuclear and automotive applications for surface flaw and through leak detection.
<i>MET-L-CHEK VP-302</i>	Level 2 (high sensitivity) <u><i>Delivery form:</i></u> <i>Can 10 L</i> <i>Cask 200 L</i>	C - solvent removable Art.No. 123.200.203 Art.No. 121.200.204	yes	Special high temperature penetrant used for applications in which the part surface temperature is 52°C to 177 °C. VP-302 finds wide use in field weld and weld repair inspection as well as in the inspection of refinery processing equipment that is at elevated temperatures. It is used with R-502 remover and D-702 developer only.



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MET-L-CHEK PENETRANT SYSTEMS

MET-L-CHEK Cleaners & Removers

<i>Product Name</i>	<i>Solvent Class</i>	<i>AMS-2644 OPL</i>	<i>Product Information</i>
MET-L-CHEK NPU	Class 2 – non-halogenated <u>Delivery form:</u> Spray can 400 ml Can 1 L Can 10 L Cask 200 L	Art.No. 121.100.101 Art.No. 121.100.102 Art.No. 121.100.103 Art.No. 121.100.104	AMS-2644 OPL conf. Alcohol based cleaner and remover for use with all penetrants.
MET-L-CHEK E-59 A	Class 2 – non-halogenated <u>Delivery form:</u> Spray can 400 ml Can 1 L Can 10 L Cask 200 L	Art.No. 122.113.101 Art.No. 122.113.102 Art.No. 122.113.103 Art.No. 122.113.104	yes Moderate drying cleaner and remover for use with all penetrants, ideal for penetrant wipe removal and pre-inspection surface cleaning. It is composed of petroleum solvents and has a gentle solvent action, which is ideal for the removal of excess surface penetrant.
MET-L-CHEK R-502	Class 3 – Special application remover <u>Delivery form:</u> Can 25 L Cask 200 L	Art.No. 123.200.103 Art.No. 123.200.104	yes Special application high temperature inspection penetrant remover used as a method C remover. It is used with high temperature visible penetrant VP-302. R-502 finds wide use in field weld and weld repair inspection.
MET-L-CHEK R-503	Class 2 – non-halogenated <u>Delivery form:</u> Can 1 L Can 10 L Cask 200 L	Art.No. 122.113.112 Art.No. 122.113.112 Art.No. 122.113.112	yes A fast drying cleaner and remover for use with all penetrants. Ideal for penetrant wipe removal and pre-inspection surface cleaning as well as for storing test panels in.
MET-L-CHEK R-504	Class 2 – non-halogenated <u>Delivery form:</u> Spray can 400 ml	Art.No. 112.113.121	yes A very fast drying cleaner and remover, ideal for penetrant wipe removal, especially for the verification of indications. Phenol free.

MET-L-CHEK Developers

<i>Product Name</i>	<i>Form</i>	<i>AMS-2644 OPL</i>	<i>Product Information</i>
MET-L-CHEK D-70	d & e – non-aqueous developer <u>Delivery form:</u> Spray can 400 ml Can 1 L Can 10 L Cask 200 L	Art.No. 121.100.501 Art.No. 121.100.502 Art.No. 121.100.503 Art.No. 121.100.504	yes A suspension of an absorbent powder in a volatile solvent. The solvent action of this type of developer helps bring the penetrant to the surface enhancing the detectability of the finest flaws. D-70 dries quickly and produces a smooth, uniformly white coating. Use with visible and fluorescent penetrants.
MET-L-CHEK D-702	f – special application material <u>Delivery form:</u> Can 25 L Cask 200 L	Art.No. 123.200.403 Art.No. 123.200.404	--- D-702 is a special application high temperature (52°C-177°C) inspection developer with high temperature visible penetrant VP-302 to enhance detection of surface cracks and porosity on hot surfaces in field weld and weld repair inspection.