BRITEMOR® / CHECKMOR ® LD7 & LD9

NON-AQUEOUS LIQUID DEVELOPERS

1 Description

LD7 and LD9 are liquid suspensions of an inert white powder in a quick drying solvent with low sulphur, halogen and alkali metal content.

LD7 and LD9 are used as developers in penetrant testing of forged parts, welds, cast and drop forged parts. LD9 offers best results with both color contrast and fluorescent penetrants while the thin, translucent layer provided by LD7 will make it especially suited for fluorescent penetrant testing applications.

LD7 and LD9 are available as bulk material and as aerosol. They are typically used in a penetrant system with Checkmor® or Britemor® penetrants and their S series of removers.

Conformances

✓ EN ISO 3452-2	Form d & e
✓ SAE	QPL-2644 (approval, LD7)
✓ ASME Boiler & Vessel Code	Section V, Article 6

Ask your Chemetall representative for a complete list of approvals

2 Physical and chemical properties

Property	LD7	LD9	Unit
Appearance	White solid particle in a clear liquid		-
Density	0.96	0.8	g/ml @ 20°C / 68°F
Flash point	-18 / 0	16 / 61	°C / °F

These are typical values only and do not constitute a specification.

3 Method of use

3.1 Pre-cleaning, penetrant & excess penetrant removal

Clean part with e.g. S72, S76, S80 or S85 before applying the Checkmor® or Britemor® penetrant. Apply cleaner to the part and wipe clean with cloth. Surface has to be free of grease, oil and dirt. Allow part to dry before applying penetrant.

Apply a thin even film of Checkmor® or Britemor® penetrant to cover test area and allow penetration as per the required time.

Remove excess surface penetrant with clean cloths, pre-moistened with cleaner (e.g. S72, S76, S80 or S85). Alternatively, removal can be affected by gentle water spray or by rinsing with water (for application over 5°C / 41°F). Do not flush surface with cleaner as sensitivity will be impaired. Repeat procedure until surface penetrant has been removed. Thoroughly dry the component surface before developer application.

3.2 Developing

LD7 or LD9 are solid suspensions of solid particles which settle-out on standing; and therefore, aerosols and bulk containers must be shaken thoroughly before and during use.

Spray thin, even developer film over area to be inspected (spraying distance 30 cm / 1 ft.). Surface temperature should be between -10 and 50°C (15-120°F). LD7 must be applied by a light even spray (immersion or brushing will cause a loss of process sensitivity). When LD7 is used as part of a Britemor® fluorescent penetrant process, it should be applied by successive spraying until a translucent layer is achieved.

Allow 10 – 30 minutes developing time before evaluation.

3.3 Inspection

For Checkmor® color contrast processes, inspection should be carried out in diffused white light of at least 500 lux (approx. 46 ft.cdl) and in the case of Britemor® fluorescent penetrant processes under UVA of 365 nm peak wavelength, typical output of 1200 µwatts/cm² at 38 cm from the component.

Note: the procedure above is a recommendation only; where relevant, the process specifications of the approving authorities must be followed.

4 Effects on materials

LD7 and LD9 are used in the prescribed manner, no significant corrosion is likely to occur on commonly used constructional metals. LD7 and LD9 may cause swelling of some rubbers and plastics, the product should be tested for compatibility before application.

5 Storage

Store in a cool place, with protection from freezing conditions. Shelf life is 36 months for aerosol cans and 60 months for bulk material.

6 Labor and environmental protection

Before operating the process described it is important that this complete document, together with any relevant Safety Data sheets, be read and understood.

All local and national regulations on the transport, storage, use and waste treatment of chemicals in concentrated or diluted form and as working solutions must be obeyed.

7 General Information

Chemetall supplies a wide range of chemical products and associated equipment for cleaning, descaling, paint and carbon removal, metal working and protection and non-destructive testing. Sales Executives are available to advice on specific problems and applications.

The above details have been compiled to the best of our knowledge on the basis of tests and research work and with regard to the current state of our practical experience. This technical product information is non-binding. No liabilities or guarantees deriving from or in connection with this leaflet can be imputed to us. Statements relating to possible uses of the product do not constitute a guarantee that such uses are appropriate in a particular user's case or that such uses do not infringe the patents or proprietary rights of any third party. The reproduction of any or all of the information contained in this leaflet is expressly forbidden without Chemetall's prior written consent.

Headquarters and Regional Head Office
Europe, Middle East, Africa, South America
Chemetall GmbH
Trakehner Straße 3
60487 Frankfurt am Main, Germany
Tel: +49 (0) 69 7165-0

Regional Head Office
North America
Chemetall US, Inc.
675 Central Avenue
New Providence, NJ 07974, USA
Tel: +1-908-464-6900

Regional Head Office
Asia-Pacific
Chemetall Asia Pte Ltd.
12 Loyang Crescent
Singapur 508980
Tel: +65 6885 7900

www.chemetall.com | surfacetreatment@basf.com

© 2018 Chemetall GmbH, Frankfurt am Main, Germany