

ZL-440

WATER-BASED, WATER-WASHABLE FLUORESCENT PENETRANT 高级灵敏度水基水洗型荧光渗透液

ZL-440 is a water-based, water-washable fluorescent penetrant used for finding indications in castings, forgings, extrusions and other materials with rough surfaces commonly found in automotive part applications. ZL-440 is an ideal solution when waste water produced during the inspection process is a concern for the operation. ZL-440 is water based and contains no petroleum distillates which may allow its rinse water to be disposed of directly into the sewage system depending on local regulations.

ZL-440是一款水基、水洗型荧光渗透液，用于检测表面较粗糙的锻件、铸件或其材料的缺陷，广泛用于汽车零部件行业。当重点关注检测过程产生的废水时，ZL-440是理想的渗透剂。ZL-440以水为基本溶剂，不含石油馏分，废水处理难度和处理成本下降，处理后可直接排放或回用。

The penetrant features excellent rinse removability and is self-developing which means that separate developer may not be necessary depending on the application.

ZL-440渗透剂具有优异的水洗性和自显像特性，这意味着根据程序文件可以采用自显像工艺。

ZL-440 is designed to be environmentally sensitive while meeting industry approvals, including EN ISO 3452-2 and AMS 2644, and can be used in place of any conventional water-washable fluorescent penetrant

ZL-440产品设计的理念是环保，同时符合包括EN ISO 3452-2和AMS 2644在内的行业批准，并部分取代原来使用水洗型渗透剂的场合。

Benefits 优势

Reduce environmental footprint and waste-water pollutants

减少废水对环境的污染

- Reduce water treatment costs and discharge waste process water directly into the sewage system (depending on local regulations) due to minimal water-based contaminants.
降低废水处理成本，废水中污染物极少，可将废水直接排放到污水系统中（取决于当地法规）。
- Meet or exceed local discharge regulations with low Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) levels.
BOD、COD含量低，BOD/COD比值高，易生物降解。
- Support a healthy environment with waterbased penetrants that have minimal occupational health and safety impacts.
水基产品安全环保、不燃烧、无不良气味，最小的职业健康和安全影响。

Reliably speed up inspection and wash processes

加速检测和清洗进程

- Identify bright indications with superior sensitivity and low fluorescent background interference.
荧光背景残留少，缺陷指示清晰，灵敏度高，便于观察。
- Increase throughput and reduce costs by eliminating the developer step of inspection processes depending on procedures and requirements.
根据程序文件的要求，可采用自显像工艺，提高检测效率并降低成本。
- Rapid rinse and post inspection washing of parts thanks to excellent washability properties, due to trade secret chemistry.
由于独特的配方，产品具有优异的水洗性能，加速清洗进程。

Features 特性

- High sensitivity
高灵敏度
- Hydrocarbon-free
不含碳氢化合物
- Biodegradable
可生物降解
- Excellent water wash removability
优异的水洗型
- Developer is not required
可自显像

Specifications 符合规范

- ISO 3452-2
- QPL SAE AMS 2644G
- ASTM E1417
- ASTM E165
- GB/T 18851.2
- JB/T 7523-2010

Applications 应用

Defect location: open to surface

缺陷类型: 表面开口缺陷

Ideal for 适用于

- Use in the automotive industry 汽车工业
- In applications where traditional petroleum solvent-based penetrants may attack the test surface, such as plastics.
使用油基产品可能会造成表面破坏的场合, 例如塑料。
- Castings 铸件
- Forgings 锻件
- Extrusions 挤压成型件
- Ferrous and non-ferrous 黑色金属和有色金属
- Aluminum 铝制品
- Steel 钢铁制品
- Nickel 镍基合金
- Titanium 钛合金

Properties 属性

NDT Method 无损检测方法	Fluorescent Penetrant 荧光渗透检测
Type 类型	I 类
Method(s) 去除方法	A(W) 水基水洗型
Sensitivity 灵敏度	High 高级
Required Equipment 设备要求	UV light source 紫外线灯
Temperature range 温度范围	40 to 122°F / 4 到 50°C
Flash Point 闪点	> 200°F / 100°C
Density 密度	1.0 g/ml
Viscosity 粘度 (38°C)	14.2 mm ² /s
BOD/COD	大于0.3
NPE-Free不含烷基酚	Yes 不含

Use Recommendations 使用推荐

Cleaner/remover 清洗剂	SKC-S
Dry developer 干粉显像剂	ZP-4B
Solvent-based developers 溶剂悬浮式显像剂	SKD-S2, ZP-9F
UV lamp UV灯	EV6000, ST700

Packaging 包装形式

01-3144-50C	20L pail / 20升桶
01-3144-60C	200L drum / 200升桶
01-3144-70C	1000L drum / 1000升桶

Health and Safety 安全和健康

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the product Safety Data Sheet, which is available at www.magnaflux.cn.

产品使用前请务必阅读健康安全说明, 详细信息敬请访问www.magnaflux.cn。