

ZL-19

LEVEL 1 WATER WASHABLE FLUORESCENT PENETRANT

一级灵敏度水洗荧光渗透剂

A water-removeable Level 1 penetrant, ZL-19 is designed for use on rough or unmachined surfaces such as castings and forgings to find larger discontinuities in non-safety critical components. It is ideal for inspecting automotive and general industrial components such as engine cylinder blocks, power train components, rocker arms, pistons, steering knuckles, etc.

作为一款水洗型一级灵敏度渗透液, ZL-19被设计用于表面粗糙或未经加工的以铸造、锻造等方式生产的非关键安全件的表面探伤, 用以找到相对比较大的缺陷。尤其适用于发动机缸体, 动力传动组件, 控制臂, 活塞以及转向节等汽车和一般工业零部件。

ZL-19 washes off parts with ease, leaving less background for clearer indications – even on rough surfaces. The quick rinsing reduces water usage in the inspection process which helps users reduce their over-all cost per part by reducing penetrant loss through drag-out, speeding up the washing and inspection process, and cutting rinse water costs.

ZL-19即使在粗糙表面也表现出优秀的水洗性能, 其背景残余少, 缺陷显示清晰等优点也很突出。在实际检测工艺中通过快速清洗可以有效减少用水量, 同时降低渗透液带走量, 提高清洗和检测效率从而帮助用户降低成本。

ZL-19 can be used with ZP-4B dry powder developer, with ZP-5B water suspendible developer in an agitated tank or with ZP-9F non-aqueous developer. With a UV-A light source, indications will appear as a bright green-yellow fluorescence.

ZL-19可以搭配ZP-4B干粉显像剂, ZP-5B水悬浮显像剂或者ZP-9F溶剂型显像剂使用。在黑光灯下缺陷显示呈明亮的荧光黄绿色。

ZL-19 is listed on the QPL SAE AMS 2644 Qualified Product List and is approved for use by Pratt & Whitney.

ZL-19列入AMS 2644合格产品目录、普惠准入资格。

BENEFITS 优势

Increase indication detection on cast parts & rough surfaces

提高铸造零件及粗糙表面的检出率

- Increase detection of defects in cast parts, such as hot tears, laps, or cold shuts.
可以有效检测出铸造件中常出现的热应力裂纹, 堆叠或者冷隔等缺陷。
- Indications stand out more because of reduced background fluorescence, even on rough cast surfaces.
即使在粗糙的铸造表面, 由于背景荧光残余少, 缺陷显示也非常明显。

Speed up your inspection process

提高检测工艺效率

- Quickly apply and remove penetrant due to high surface wetting and easy washability.
基于高润湿性和易水洗性可以快速施涂和清洗渗透液。
- ZL-19 is spray-friendly and will not clog nozzles in automated lines, for less maintenance downtime.
ZL-19适合喷涂, 在自动线上使用不会阻塞喷嘴, 减少设备维护停机时间。

Performance value

价值表现

- Use less penetrant per part, thanks to lower drag out.
由于具有比较低的带走量, 可以使用更少的渗透液检测更多零部件。
- Penetrant can be reused from the dwell cycle, so more of it stays in your tank instead of getting carried away on parts
滴落工艺回收的渗透液可重复使用, 大部分渗透液不会被零部件带走从而流回液槽继续使用。

Maximize operator comfort and safety

极高的舒适度和安全性

- Promotes better inspection quality by providing the operator with a more comfortable work environment
ZL-19可提供一个更舒适的工作环境, 从而提高检测质量。
- Reduces discomfort from strong odors
减少强烈的刺激气味。
- Exceeds all EHS requirements
高于所有的EHS要求。

FEATURES 特性

- Level 1 sensitivity
1级灵敏度
- Water washable
可水洗
- Excellent rough surface washability
优异的粗糙表面清洗性能
- Bright, high-contrast indications
高亮度、高对比度的缺陷显示
- Clean rinsing on cast parts
在铸造件上可快速冲洗
- Won't clog spray nozzles in automated systems
在自动线上不会堵塞喷嘴
- Good surface wetting
优秀的表面润湿性
- High flash point
高闪点
- Easy washability
易清洗
- Less time to rinse
冲洗时间更少
- Use less penetrant per part
渗透液使用量更少

SPECIFICATIONS 符合规范

- AECL
- AMS 2644
- ASME
- ASTM E1417
- ASTM E165
- Boeing BAC 5423 PSD 6-46 or 8-4
- Boeing PS-21202
- MIL-STD-2132
- MIL-STD-271
- NAVSEA T9074-AS-GIB-010/271
- Pratt & Whitney PMC 4350
- QPL SAE AMS 2644

PROPERTIES 属性

Flash Point 闪点	> 200°F / 93°C
Density 密度	0.85 g/ml
Viscosity 粘度 (100°F / 38°C)	5.62 cs
NPE-Free 不含烷基酚	Yes 是

APPLICATIONS 应用

Defect location: open to surface

缺陷位置：表面开口缺陷

Ideal for 适用于

- Castings 铸件
- Forgings 锻件
- Rough surface finish 粗糙表面
- Unmachined parts 未加工表面
- Engine cylinder blocks 发动机缸体
- Power train components 动力传动组件
- Rocker arms 控制臂
- Pistons 活塞
- Steering knuckles 转向节
- Automated penetrant lines 自动化渗透线

Defect examples 缺陷类型

- Cracks 裂纹
- Seams 裂缝
- Cold shuts 冷隔
- Delamination 分层
- Porosity 气孔
- Hot tears 热应力裂纹
- Laps 折叠

USE RECOMMENDATIONS 使用推荐

NDT Method 无损检测方法	Penetrant Testing, Fluorescent 荧光渗透检测
Type 渗透液类型	1
Method(s) 去除方法	A/C
Sensitivity Level 灵敏度等级	1, low sensitivity 1级, 低灵敏度
Required Equipment 设备要求	UV light source 紫外线光源
Temperature range 温度范围	40 - 125°F / 4 - 52°C

PACKAGING 包装形式

01-3263-50C	20 L pail 20升桶
01-3263-60C	200 L pail 200升桶

HEALTH AND SAFETY 健康和安全

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.

产品使用前请阅读相关的健康和安​​全信息。完整的健康和安​​全信息参考 www.magnaflux.cn 上的 SDS (安全数据表)。