

ZL-37

Level 4 Post Emulsifiable Fluorescent Penetrant

Essential for critical component applications, ultra-high sensitivity (Level 4) ZL-37 fluorescent post-emulsifiable penetrant is designed for detecting fine, tight discontinuities. Parts common for this testing procedure include titanium turbine components, and high-stress critical components such as investment castings. Both Method B lipophilic emulsifier ZE-4E and Method D hydrophilic emulsifier ZR-10E can be used to remove surface ZL-37 penetrant. Developers can be ZP-4B dry powder developer, ZP-14A water soluble developer in a non-agitated tank, ZP-5B water suspendible developer in an agitated tank, or ZP-9F non-aqueous developer. With a UV-A light source, indications will appear as a bright green-yellow fluorescence. ZL-37 has a high flash point, and is designed to be used in open dip tanks.

ZL-37 is listed on the QPL SAE AMS 2644 Qualified Product List and is approved for use by Pratt & Whitney.

BENEFITS

- Bright, high-contrast indications
- Resists over-washing
- High flash point

SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- ASME
- ASTM E1417
- ASTM E165
- Boeing BAC 5423 PSD 6-46 or 8-4
- Boeing PS-21202
- ISO 3452
- MIL-STD-2132
- MIL-STD-271
- Navsea T9074-AS-GIB-010/271
- Pratt & Whitney PMC 4354
- QPL SAE AMS 2644

APPLICATIONS

Defect location: open to surface

Ideal for:

- Precision components
- High-stress parts
- Smooth, machined surface finish
- Non-porous surfaces

Defect examples:

- Finished surface cracks
- Seams
- Porosity
- Scratches

PROPERTIES

Flash Point	> 200°F / 93°C
Density	0.98 g/cc / 8.15 lb/gal
Viscosity (at 100°F / 38°C)	13.71 cs
NPE-Free	Yes

USE RECOMMENDATIONS

NDT Method	Penetrant Testing, Fluorescent
Type	1
Method(s)	B / C / D
Sensitivity Level	4, ultrahigh sensitivity
Required Equipment	UV light source
Temperature Range	40 to 125°F / 4 to 52°C

PACKAGING

Aerosol can, case of 12	01-3188-78
5 gal / 18.9 L pail	01-3188-40
20 gal / 75.7 L drum	01-3188-30
55 gal / 208 L drum	01-3188-45

HEALTH AND SAFETY

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.com.