ZYGLO® ZL-37

后乳化型荧光渗透剂

Post Emulsifiable Fluorescent Penetrant

种类属性 CLASSIFICATION

- ✧ 类型：1，去除方法：B 亲油性后乳化型渗透液，当使用 ZE-4E 亲油性乳化剂时。
  Type 1, Method B Penetrant: when using ZE-4B lipophilic emulsifier

- ✧ 类型：1，去除方法：C 溶剂去除型渗透液，当使用 SKC-S 溶剂作为去除剂时。
  Type 1, Method C Penetrants when using SKC-S Cleaner/Remover

- ✧ 类型：1，去除方法：D 亲水性后乳化型渗透液，当使用 ZR-10B（20%）亲水性去除剂时。
  Type 1, Method D Penetrant: when using ZR-10B (20%) hydrophilic remover.

基本信息 GENERAL DESCRIPTION

Zyglo® ZL-37 后乳化型荧光渗透液可广泛用于灵敏度要求比较高的渗透检测应用，并且经过精心调配，因不含乳化剂，因此有效避免在缺陷处出现过洗现象。它们要求与油性或水性乳化剂一同使用，以使其具有水洗性，并由于闪点高，能完全满足 OSHA 对 Class III B 类液体的要求，因而可在开口的槽内使用。
Zyglo® ZL-37 post emulsifiable fluorescent penetrants are used for a wide range of sensitive applications and are formulated to be impervious to water to assure against being over-washed from defects. They require the application of a lipophilic emulsifier or a hydrophilic emulsifier to render them washable with water and meet OSHA requirements for Class III B liquids due to their high flash point, allowing them to be used in open dip tanks.

Zyglo® ZL-37 后乳化型荧光渗透液在紫外线下呈现亮黄绿荧光色，推荐使用主峰波长 365 纳米的黑光灯，例如 MAGNAFLUX®美国磁通的 ZB-100F 风冷式黑光灯。
Zyglo® ZL-37 post emulsifiable fluorescent penetrants fluoresce a bright greenish-yellow color under ultraviolet radiation. Use of a black light source with a peak wavelength of 365nm is required.

应用 APPLICATION

Zyglo® ZL-37 （4 级, 超高级灵敏度）：用于关键部件（如：钛涡轮元件等其它高应力零件）的平滑、非多孔性、精加工表面的裂纹、缝隙、孔隙和划伤的检测。
Zyglo® ZL-37 (Level 4, Ultra-High Sensitivity): Ideal for titanium turbine components, investment castings and other high stress critical components where detection of fine, tight and broad open shallow discontinuities is required.

典型性能(非规格) TYPICAL PROPERTIES (Not a specification)

典型性能 Typical Properties	ZL-37 后乳化型荧光渗透剂
灵敏度等级 Sensitivity Level	4 级灵敏度 Level 4
粘度@ 100 °F（38 °C） Viscosity @ 100 °F (38 °C)	14.8 厘司 14.8 CS
闪点 Flash Point	最低 200 °F（约 93°C） 200 °F（93°C）Minimum
硫含量 Sulfur Content	小于 1000 ppm Less than 1000 ppm
氯含量 Chlorine Content	小于 400 ppm Less than 400 ppm
卤素含量 Halogen Content	小于 1000 ppm Less than 1000 ppm
钠含量 Sodium Content	小于 100 ppm Less than 100 ppm
氟含量 Fluorine Content	小于 50 ppm Less than 50 ppm
VOC 含量 VOC Content	191 克/升 191 g/l

施加方法 METHOD OF APPLICATION

在施加渗透剂之前，工件必须清洁、 干燥、去油、 脂或其他污染物质。渗透液可通过浸泡、涂刷、倾倒、 常规或静电喷涂等方式施加到工件的待检区域。待检查的区域必须完全覆盖渗透液。
Test parts must be clean, free of all oil, grease or other foreign contaminating substances and dry before penetrant is applied. Penetrants may be applied by immersion, dip, brush or flow-on, conventional or electrostatic spray. The area to be inspected must be completely covered with penetrant.

警告！渗透液可能会损伤甚至溶解许多种类的塑料管道。聚氯乙烯 (PVC) 管是非常脆弱的，暴露在渗透液中几天就可能会被分解。即使稀释过的渗透剂的清洗废液也会损坏 PVC 材料。ABS 塑料管材也同样会受损。在安装输送渗透液的水管时，请务必使用金属管。
Warning! Penetrants attack and even dissolve many kinds of plastic pipe. Polyvinyl chloride (PVC) pipe is especially vulnerable, and can crumble after only a few days of exposure. Even diluted penetrant rinsings attack it rapidly. ABS plastic pipe is nearly as sensitive. When installing plumbing to handle penetrant rinsings, use metal pipe.

塑料材质兼容性 PLASTICS COMPATABILITY

渗透剂通常适用于尼龙、聚四氟乙烯、乙缩醛、聚丙烯和环氧树脂等塑料材质。但是，仍推荐使用实际的试块来验证渗透剂是否于该材质相兼容。否则，渗透剂可能会污染、软化甚至溶解某些塑料材质。
Penetrant materials are typically compatible with nylon, teflon, acetal, polypropylene, and epoxies. However, it is still recommended that the penetrant be evaluated for compatibility on actual test pieces. Penetrants may stain, soften, or even dissolve plastic materials.

去除渗透剂 PENETRANT REMOVAL

后乳化性渗透液需要与油性或水性的乳化剂配合使用，以使其具有水洗性。当对较小区域进行检测时，也可使用溶剂去除（方法 C），通常可使用 SKC-S 溶剂清洗剂。用 SKC-S 湿润擦拭布，然后擦拭覆盖有渗透剂的表面。请勿将清洗溶剂直接倾倒至工件表面，因为可能会对检测的灵敏度产生影响。
Post emulsifiable penetrants require the use of a lipophilic or hydrophilic emulsifier to render them water washable. For inspection of small areas, the solvent wipe technique (Method C) is commonly employed using SKC-S solvent cleaner/remover. Moisten a clean wiping media with SKC-S and wipe the inspection area free of surface penetrant. Do not flood the inspection surface with cleaner/remover because the sensitivity may be impaired.

施加显像剂 DEVELOPER APPLICATION

显像剂可以将缺陷指示放大，提高检测的灵敏度。水基显像剂应在干燥工序前施加；干粉或其他非水基显像剂，必须在干燥工序后施加。
Developers should be used to maximize the sensitivity of penetrants. Aqueous developers are applied prior to drying; dry powder and non-aqueous developers are applied after drying.

警告！在使用水基显像剂时，工件不宜长时间的泡在显像液中，因为这样会对渗透检测的灵敏度产生不利影响。
Warning! Parts should not remain in aqueous developers for any length of time, as the penetrant sensitivity could be impaired.

推荐的显像剂 RECOMMENDED DEVELOPERS

推荐与渗透剂配套使用的显像剂如下：
The following developers are recommended for use.

- ZP-4B 干粉显像粉
  ZP-4B Dry Powder Developer
- ZP-9F 非水性显像剂
  ZP-9F Non-Aqueous Developer
- SKD-S2 非水性显像剂
  SKD-S2 Non-Aqueous Developer
- ZP-5B 水悬浮式显像剂
  ZP-5B Water Suspendible Developer
- ZP-14A 水溶性显像剂
  ZP-14A Water Soluble Developer

符合规范 SPECIFICATION COMPLIANCE

AMS-2644, ASTM E 1417, ASTM E 165, MIL-STD-271, MIL-STD 2132, ASME B & PV Code, Sec V, AECL, Boeing PS-21202, Boeing BAC 5423 PSD 6-46 or 8-4, Pratt and Whitney.

包装规格 PACKAGING

20 升桶；200 升桶。
20 Liters Drum, 200 Liters Drums.