

## ZYGLO®

### Lipophilic Emulsifier

# ZYGLO® ZE-4E

## General Description

A Method B lipophilic emulsifier, ZE-4E diffuses into the penetrant to clear the penetrant from the surface of the part being inspected. It is rinsed from the part by water, carrying penetrant off the part surface. Designed to be used with post-emulsifiable penetrants ZL-2C, ZL-27A or ZL-37. Benefits include low volatility and a high flash point, so ZE-4E can be used in open immersion tanks.

ZE-4E is listed on the QPL SAE AMS 2644 Qualified Product List.

## Benefit

- Low Volatility
- High flash point

## Applications

ZE—4E can be applied by immersion or flowing, with immersion being the recommended method. The penetrant-covered part is completely covered with emulsifier and allowed to drain for a pre-determined length of time, then washed with water to remove the penetrant /emulsifier mixture. The emulsification time will vary depending upon the penetrant used, part surface finish, specification requirements and the desired results.

The emulsification time for ZE-4E ranges between 30 seconds and Three minutes for type 1 penetrants depending on specifications. This time must be monitored closely to get the best results.

**Defect Locations:** Open to surface

**Ideal for:**

- Casting
- Forgings
- Extrusions

**Defect Examples:**

- Crack
- Seams
- Laps
- Porosity



## Specification compliance

- 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

## Typical Properties (not specification)

<b>Flash Point</b>	> 240°F / 121°C
<b>Density</b>	7.71 lb/gal (926 g/L)
<b>Viscosity (at 100°F / 38°C)</b>	21.47 cs
<b>NPE-Free</b>	Yes

### USE RECOMMENDATIONS

<b>NDT Method</b>	Penetrant Testing
<b>Method(s)</b>	B
<b>Usage Temperature</b>	40 to 125°F / 5 to 52°C
<b>Storage Temperature</b>	50 to 86°F / 10 to 30°C
<b>Coverage</b>	1 gal will cover approximately 1,000 ft <sup>2</sup> / 93 m <sup>2</sup>

### PACKAGING

10 Liters	F02039
20 Liters	F02038

### 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.in](http://www.magnaflux.in)

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