

# ZL-60D

## Level 2 Water Washable Fluorescent Penetrant

Developed for testing rough machined surfaces, and to readily wash off rough surfaces, ZL-60D medium sensitivity (Level 2) fluorescent water washable penetrant will find indications in castings, forgings, extrusions, and rough machined surfaces. Indications appear for cracks, seams, laps, cold shuts, laminations and porosity. ZL-60D is safe to use on most engineering and aerospace alloys, such as aluminum, steel, nickel and titanium. The high flash point of ZL-60D allows its use in open tanks. Developers recommended are ZP-4B dry powder, SKD-S2 or ZP-9F solvent-based or ZP-5B water based.

ZL-60D is listed on the QPL SAE AMS 2644 Qualified Product List and is approved for use by Pratt & Whitney.

### BENEFITS

#### Improve indication detection

- Makes indications stand out more by easily washing excess penetrant off with water
- Reduces background fluorescence, even on rough surfaces

#### Affordable performance

- Drives value at each step of the inspection process
- Quickly apply penetrant with high surface wetting
- Easily wash off with water
- Use less penetrant over time because of lower drag-out and slower evaporation

#### Maximize application versatility

- Ideal for an extensive variety of part types due to Level 2 sensitivity
- Universal specification conformance and fast, even surface wetting

#### Maximize operator comfort and safety

- Promotes better inspection quality by providing the operator with a more comfortable work environment
- Reduces discomfort from strong odors
- Exceeds all EHS requirements

## FEATURES

- Bright, high-contrast indications
- Good removability
- Excellent rough surface washability
- Water washable
- Level 2 medium sensitivity
- High flash point
- Very low odor
- Better surface wetting
- Alloy compatibility
- High thermal resistance
- High UV stability
- Very low toxicity
- Low volatility
- Optimized capillary action
- QPL SAE AMS 2644 Qualified Product List
- Approved for use by Pratt & Whitney

## SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- ASME BPVC
- ASTM E1417
- ASTM E165
- Boeing BAC 5423 PSD 6-46 or 8-4
- Boeing PS-21202
- GE P3TF2
- GE P50YP107
- Honeywell EMS 52309
- ISO 3452-2
- MIL-STD-2132
- MIL-STD-271
- NAVSEA T9074-AS-GIB-010/271
- Pratt & Whitney PMC 4351
- QPL SAE AMS 2644

## APPLICATIONS

**Defect location:** open to surface

**Ideal for:**

- Castings
- Forgings
- Extrusions
- Welds
- Machined components
- Aerospace alloys

**Defect examples:**

- Cracks
- Laps
- Seams
- Cold shuts
- Delamination
- Porosity

## PROPERTIES

<b>Flash Point</b>	> 200°F / 93°C
<b>Density</b>	0.92 g/cc / 7.65 lb/gal
<b>Viscosity (at 100°F / 38°C)</b>	10.27 cs
<b>NPE-Free</b>	Yes

**USE RECOMMENDATIONS**

<b>NDT Method</b>	Penetrant Testing, Fluorescent
<b>Type</b>	1
<b>Method(s)</b>	A/C
<b>Sensitivity Level</b>	2, medium sensitivity
<b>Required Equipment</b>	UV light source
<b>Temperature range</b>	40 to 125°F / 4 to 52°C

**PACKAGING**

Aerosol can, case of 12	01-3272-78
5 gal / 18.9 L pail	01-3272-40
20 gal / 75.7 L drum	01-3272-30
55 gal / 208 L drum	01-3272-45

**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](http://www.magnaflux.com).