

# ZL-60D

## Level 2 Water Washable Fluorescent Penetrant

Developed for testing rough machined surfaces, ZL-60D fluorescent water-removeable penetrant is ideal for finding indications in a wide range of applications, including aerospace materials.

This medium-sensitivity penetrant features superior sensitivity versus other penetrants at this level, and also washes off parts quickly and easily, leaving less fluorescent background – even on rough surface – for clearer indications and better inspection reliability.

ZL-60D is one of the most versatile “work-horse” penetrants, customers can use this one penetrant for a wide range of applications on a range of parts to find many different types of defects, including cracks, seams, laps, cold shuts, laminations and porosity.

Broad specification compliance further increase this penetrants flexibility. ZL-60D has excellent alloy compatibility and is safe to use on most engineering and aerospace materials, including aluminum, steel, nickel and titanium.

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

- Superior sensitivity relative to other Level 2 penetrants delivers bright, high-contrast indications
- Makes indications stand out more by easily washing excess penetrant off with water
- Reduces background fluorescence, even on rough surfaces

#### Maximize application versatility

- Ideal for an extensive variety of part types due to Level 2 sensitivity, including aerospace materials
- 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

**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 4350

**APPLICATIONS**

**Defect location:** open to surface

**Ideal for:**

- Castings
- Forgings
- Extrusions
- Welds
- Machined components
- Aerospace alloys
- Aluminum
- Steel
- Nickel
- Titanium

**Defect examples:**

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

**PROPERTIES**

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

**USE RECOMMENDATIONS**

NDT Method	Penetrant Testing, Fluorescent
Type	1
Method(s)	A/C
Sensitivity Level	2, medium sensitivity
Required Equipment	UV light source
Usage Temperature	40 to 125°F / 5 to 52°C
Storage Temperature	50 to 86°F / 10 to 30°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).