



D-90G Dry Developer

Technical Data Sheet

Description: **D-90G** a dry developer used with fluorescent penetrants. It amplifies the location of cracks, pores, and similar flaws by multiplying fluorescent brilliance. **D-90G** also assists penetrant re-bleed back to the part surface, and stabilizes indications. Complies with low sulfur, low halogen, and low sodium requirements.

Chemical Properties

Color: White Powder

Companion Products

All fluorescent penetrants

Packaging

15 lbs Bag

Storage /Shelf Life

Keep away from moisture and sunlight.

Temperature limit: 40°F to 125°F (0-50°C)

Keep the container closed when not in use.

Shelf life from invoice date: Bulk Container – 5 Years

Specifications

SAE AMS 2644 & QPL

MIL-I-25135 Revisions D & E

Lockheed Martin

Boeing

Honeywell

Pratt & Whitney FPM

General Electric

ASME Code NDT, Sec V

MTU

Rolls Royce

Turbomeca

Airbus

Northrup Grumman

Special Features

1. It draws penetrant to the surface to clearly define a flaws location.
2. Amplifies an indication's fluorescent brilliance.
3. Provides a thin coating over a part's surface to accelerate delayed flaw-entrapped penetrant re-bleed.

Instructions

Note: These instructions describe the basic process, but they may need to be amended by the user to comply with applicable specification and/or inspection criteria provided by the contracting agency.



1. **Application:** Apply fluorescent penetrant only to clean, dry surfaces by spraying, flowing, brushing or dipping.
2. **Dwell Time:** A 10 minute dwell time is suggested, although in many cases five minutes will suffice. When particularly tight cracks are suspected, or the part is especially critical, the dwell time may be extended to 30 minutes, or longer. Allow the penetrant to drain from the part surface back into the penetrant tank to conserve material.
3. **Removal:** Use the appropriate washing method to remove the excess penetrant from the surface.
4. **Drying:** A re-circulating oven set no higher than 160⁰F (71⁰C) is suggested. Leave the part in the oven just long enough to evaporate surface moisture. Drying is improved by using pressurized air to disperse and remove as much excess water as possible before placing the part into the oven.
5. **Developing:** A dust chamber is a practical method for applying **D-90G**. **D-90G** can also be applied with electrostatic spray, low pressure spray wand, or a hand powder bulb. **D-90G** may also be applied by immersing the part directly in the developer powder. (Never re-immerses the part in developer as re-immersion can wipe away penetrant already drawn to the surface.) Shake or use very light air pressure to blow the excess **D-90G** powder from the surface. Allow a minimum of ten minutes. Developing time for especially critical inspections, lengthen the developing time.
6. **Inspection:** Inspect parts under appropriate UV-A light intensity and minimal visible light.

Health & Safety

D-90G is fine powder. Avoid inhalation. Respiratory protection may be advisable. Powder must be kept dry to protect performance. Consult the MSDS for more safety and health information.