

TECHNICAL DATA SHEET

DUBL-CHEK RC-77

Code 1495

Post Emulsifiable Fluorescent Penetrant

DESCRIPTION

RC-77 is a level 4, Method B & D non-water washable fluorescent penetrant for inspecting castings, extrusions and similar parts. RC-77 is a versatile, general purpose penetrant for use on a variety of materials, including aluminium and magnesium. Complies with low sulphur and low halogen requirements. RC-77 has been used by aerospace, airframe, turbine engine and missile manufacture for over a decade.

FEATURES & BENEFITS

- Low to near zero background for assured indication visibility
- Sharp, precise flaw indication for rapid interpretation
- Excellent electrostatic spray capability.
- Long material tank life due to formula stability and non-volatility
- Low material consumption (low drag out) due to low viscosity
- Clean, odorless product, vapor free atmosphere

PHYSICAL PROPERTIES

Colour: Green
Viscosity: 9.95 cSt @ 1000F
Fluorescence: Yellow/Green
Flash Point: 2300F (110°C)

SPECIFICATION COMPLIANCE

- SAE AMS 2644
- QPL – Type 1 Method B & D, Level 1
- MIL-I-25135 Revisions C, D, & E
- ASME Code NDT Sec V
- Lockheed Martin
- MTU
- Northrop Grumman
- Pratt & Whitney FPM
- Boeing
- Rolls Royce
- Honeywell
- Turbomeca
- Airbus
- General Electric



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ORDERING INFORMATION

Product Code	Packaging
1495/400	Aerosol
1495/42	3.8 litres (3.8 litres)
1495/51	18.9 litres (5 gallons)
1495/64	208 litres (55 gallons)

BATCH NUMBERS

Batch numbers can be found on the bottom of aerosol cans or labels of bulk containers. Certificate of Conformance documents are provided with the product or can be downloaded from www.callington.com

DIRECTIONS

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 RC-29 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:**
 - a. **Hydrophilic Dip Method**
 - i. **Pre-wash:** Following the dwell, use a plain water rinse to remove most of the undrained penetrant from the surface. Use a coarse spray of ambient temperature water.
 - ii. **Immersion:** Immerse and agitate the part in 20-30% hydrophilic emulsifier solution. Immersion time and agitation time will vary with part geometry and surface condition.
 - iii. **Rinse:** Remove the part from the tank; clean with a coarse, plain water spray.
 - b. **Hydrophilic Spray Method**
 - i. **Wash:** Following the dwell, use an inject of 0.1 to 5.0% emulsifier solution to wash the excess penetrant from the part surface. Time and solution concentrations will vary with part geometry and surface conditions.
 - ii. **Rinse:** Use a coarse plain water spray to remove all traces the emulsified penetrant.
 - c. **Lipophilic Method**

