



Italy
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CGM CIGIEMME S.p.A.

Controlli Non Distruttivi - Non Destructive Testing



Product Code	Ref. no.
Spray 400 ml: 03011210	R2.82S
Spray 500 ml: 03051210	R2.82S-5
Cans: 02011200	R2.82

Product Data Sheet

ROTRIVEL U

PRODUCT DESCRIPTION

Rotrivel U is a fast-evaporating, non-aqueous, non-halogenated solvent-based developer that creates an opaque white background for high-contrast inspections. It is used to quickly induce 'bleeding' (leakage of the penetrant from the defect) in order to obtain sharp and clear indications. The high quality of the product allows for an even and thin application resulting in low penetrant consumption. The developer is easily removed using Velnet/Solnet.

COMPOSITION

A mixture of inorganic inert particles suspended in a rapidly evaporating non-halogenated organic solvent.

N.B.: Like all CGM materials, Rotrivel U is tightly controlled to ensure batch uniformity, optimal process verification and control reliability.

SPECIFICATIONS

- Milky white colour.
- Easy to apply.
- It dries quickly.
- It generates a very contrasting background.
- Maximum sensitivity.
- Easy to remove.

PACKAGING TYPE

- 400 ml spray cans
- 500 ml spray cans
- 10 L cans
- 100 L plastic drums approved for ADR transport

APPLICABILITY

It is ideal for:

- Welding inspection.
- Applications in mechanical workshops.
- In-field applications.
- Melting.
- Casting.
- Aeronautical parts.
- Parts used in automatic systems.

INSTRUCTIONS FOR USE

- Before using any developer, ensure that the surface under inspection is free of excess penetrant and dry.
- To ensure uniformity of the solvent/powder mixture, keep the suspension stirring. If using the product in spray form, shake the can before and during use.
- Apply only by spraying (dipping or other methods result in excessive solvent action), forming thin, even layers that cover the surface.



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- Allow a development time of 10 min.
However, it is always advisable to refer to the standard to be applied.
- With colour-contrasting penetrants, indications will appear as red lines (cracks) or as red spots (porosity).
- With fluorescent penetrants, the indications under ultraviolet light will show a bright fluorescence.
- At the end of the inspection, developer and penetrant residues can be removed by wiping the surface with a cloth, washing with water or using **Velnet/Solnet**.

TECHNICAL DATA

		Reference Standard
Appearance	Milky white liquid	
Odour	Characteristic	
Form	D – for penetrants Type 1 E – for Type 2 and Type 3 penetrants	EN ISO 3452-2
Density at 20°C	0.82 g/cm ³	EN ISO 12185
Flash point	≈ -20°C	ASTM D 93-A
Average particle size	≈ 10 µm	EN ISO 3452-2
Sulphur and halogen content	< 200 ppm	AMS 2644 / EN ISO 3452-2

Typical values.

TIME, TEMPERATURE OF USE AND USER RECOMMENDATIONS

NDT method	Dye and Fluorescent Liquid Penetrant Inspection
Self life	3 years at a temperature between 0°C and 45°C
Usage temperature	From 0°C to 52°C
Coverage	20-30 m ² for litre; 10-15 m ² for spray
Cleaning	Velnet/Solnet
Can be used with all types of CGM Penetrants	RED WW – Rotvel Avio B – Magisglow 3 – Magisglow 9 – Magisglow 17 – Magisglow 30...etc.
UV lamp	Labino



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COMPLIANCE WITH STANDARDS

- ASME V Art. 6
- ASTM E165/E165M
- ASTM E1417/E1417M
- EN ISO 3452-2
- AMS 2644 (Complies with the standard, but not included in the QPL list)
- PMUC (certificate of conformity on request)
- Aluminium.
- Magnesium
- Titanium.
- It can be used with both colour contrast (Type 2) and fluorescent (Type 1) and dual colour (Type 3) penetrants.
- Compliance with EN ISO 3452 allows for wide use.

BENEFITS

It is compatible with:

- Stainless steel.

HEALTH AND SAFETY

Read all health and safety information before using this product. This information can be found in the Safety Data Sheet, available on request.

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