

**TECHNICAL DATA SHEET**

# DUBL-CHEK BLACK OXIDE No.8

## *BLACK OXIDE PARTICLES PREMIXED WITH WETTING AGENT*

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**Description:** DUBL-CHEK Black Oxide No. 8 is black particles premixed with powdered Wetting Agent for use in water media. Higher particle concentration provides heavier indication buildup for easy detection. It is designed to be used with visible light for finding discontinuities in finished products.

**Properties**

Particle Colour:	Black
Specific Gravity:	1.0 g/ml
Particle Size:	0.5 – 4.0 µm (average 1.5µm)
Sensitivity:	6 lines on a AISI 01 Ketos Ring
Temperature limit:	0°C to 49°C

**Companion DUBL-CHEK Products**

CP-2 Contrast Paint

**Packaging**

1kg      Product Code: 1547/2LBS

**Specifications**

Particles meet or exceed industry specifications including;  
ASTM E1444, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E, MIL-STD-1949, AMS 3042, AMS 2641

**Storage /Shelf Life**

Keep away from moisture and sunlight.  
Keep the container closed when not in use.  
Shelf life: 36 months (3 years) from date of manufacture.  
Refer to NDT Shelf Life and Storage Recommendations for further information.

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

**Special Features**

Particles are easily agitated, fast acting and produce defined indications  
Can be mixed with water  
Particles meet specification requirements  
Water based suspension is non-flammable

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### Instructions

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

### **Preparation**

**Black Oxide No. 8** should be used at a concentration of 27 grams/litre of water. For best results, add a small amount of water to the powder and form a slurry prior to addition to the bath.

**Settlement Test:** The settlement test, using a pear-shaped centrifuge tube, is essential to check the particle concentration and contamination to the suspension. This **SHALL** be performed on the initial batch, an adjustment made to the concentration, or at each shift change. The Settlement Test methods and particle concentrations can be found in relevant standards. The recommended volume is between 1.2 and 2.4 ml and will vary from one specification to another. The concentration may be adjusted by adding more **water**, or **Black Oxide No. 8** as required.

1. Clean the test surface and allow it to dry.
2. Apply **DUBL-CHEK CP-2** for background contrast, if required.
3. Magnetise the area to be inspected.
4. Ensure continuous agitation of the suspension.
5. Apply the suspension to the test part at a distance of approximately 150mm from surface.
6. Allow the excess water to run off the inspection area.
7. Inspect the surface under visible light.
8. Collections of **Black Oxide No. 8** particles will reveal discontinuities at the leakage fields.
9. Clean and repeat the process; changing the orientation of the magnetising direction.

### Health & Safety

When **Black Oxide No. 8** is not flammable. Use with adequate ventilation and away from spark, fire or open flames. Avoid prolonged or repeated contact with skin. Do not breathe gas, fumes, vapour or spray. Consult the MSDS for more Safety and Health information.

Get medical attention if irritation develops and persists. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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