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## Test Methods

### 1. Specific Gravity

Determined by using a pycnometer and kerosene in accordance with ASTM D153-84.

### 2. Oil Absorption

Determined by spatula rub-out method with boiled linseed oil 2g pigment of a glass plate as described in ASTM D281-84.

### 3. Moisture

Determined by measuring the loss in weight of a pigment after heating 2hr at a temperature of 105°C to 110°C as outlined in ASTM D280-81.

### 4. Water Soluble Matter

Determined by measuring the loss in weight of residue after evaporation of the filtrate from 10°C aqueous slurry as outlined in ASTM D1208. 5-84.

### 5. pH

Determined by measuring the pH value of the filtrate from 2% aqueous slurry with a glass electrode as outlined in ASTM D1208. 6-84

### 6. Heat Resistance

Plastics : Pigment samples are dispersed in H.D.P.E at a 2% pigmentation level(Inorganic) and a 1% pigmentation level(Organic). Resulting Master Batches are processed through an injection molding machine at incremental temperatures for 5 minutes at 150°C.

Paints : Masstone enamels of the pigment are sprayed on panels and baked at 150°C for 10 minutes.

Inks : Metal-decoating inks of the pigment are applied white coated panels and baked at 150°C for 10 minutes.

### 7. Lightfastness

Dry prints of the pigment are exposed 72 hours in the Fade-Ometer.

### 8. Weatherfastness

Assessments are based on extensive testing of the pigment by Weather-Ometer.

### 9. Chemical Resistance

Add dry pigment powder (at a ratio of 1:10) to a 5% solution of hydrochloric acid or sodium hydroxide. Slurry and stand for 30 minutes. Filter through a No.42 filter paper, wash residue with water and dry. Compare testd pigment with control in a Hoover Muller linseed. Oil varnish. Rate the degree of colour change on 1 to 5 scale.

**\* Fastness Assessment****- Lightfastness & Weatherfastness**

8 : outstanding

7 : excellent

6 : very good

5 : good

4 : fair

3 : rather poor

2 : poor

1 : very poor

**\* Fastness to solvent heat & chemicals**

(the degree of standing)

5 : non

4 : trace

3 : slight

2 : serious

1 : severe

**\* Explanation of symbols**

● : Major applications

○ : Other potential applications