## TMCHallcrest Advanced Thermographic Technologies

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## **TECHNICAL DATA SHEET**

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- 1. Identification: MC350-8 Paint Type: Multi Change
- 2. Initial Colour: Red
- **3.** A colour change can be first observed after 10 minutes heating at 350°C
- **4.** Vehicle Type: Solvent based acrylic and silicon.

Solids:	59.5%
VOC:	635g/l
Flash Point:	30ºC

5. Application:

Apply to blast cleaned and degreased surface. No primer is necessary. Apply even coating to give good opacity, spraying is preferred method. Paint may be thinned if required by addition of PMA or similar solvents.

Baking paint at 250 – 300°C will help adhesion if later exposed to rapid rise in temperature. Paint can be removed using solvents or if heated above 300°C abrasives may be required. Always follow recommendations on the safety data sheet. This pigment contains C.I. Pigment Red 104, lead chromate which is toxic.

6. Calibration.

This calibration was carried out using nimonic butterfly test rig. The colour change temperatures quoted are based on a 10 minute heating period.

It should be noted that thermal paint is time – temperature dependant and consequently different values can be obtained for the different colour changes if longer or shorter heating periods are used. A colour change after 10 minutes can also be obtained after 5 minutes if a higher temperature is employed.

The paint to be tested was sprayed onto a nimonic steel plate giving approximately 20-25u dry film. The plate is shaped to create a restriction between bus bars through which a low voltage high amperage current is passed. It acts as a resistance heater and the temperature generated is controlled by thermocouple sensors to a regulator.

The recorded temperature is that necessary for a full colour change to occur at which ever band is being tested. There are areas of intermediate colour between bands and those areas where a distinct colour has been generated are used for calibration. Colours are from photographs of the test plates and may vary from those seen in real life. Care has been taken to obtain a true a likeness as possible.

## **DEFINITION 10 MINUTE CALIBRATION**

- **A.** RED TILE Initial colour
- **B.** RED / BEIGE
- C. BEIGE
- **D.** YELLOW
- E. GREEN
- F. YELLOW
- G. TAN
- H. BLACK/BROWN

Α	В	С	D	E	F	G	н
							No. of the second
Below 350C	350ºC	430ºC	580ºC	720ºC	850ºC	910ºC	1270ºC

Information in this Product Data Sheet is compiled from our general experience and data obtained from various technical publications. While we believe that the information provided herein is accurate at the date hereof, no responsibility for its completeness or accuracy can be assumed. Tests at TMC are carried out under controlled laboratory conditions. The user should test and verify the paint works in their particular application. Information is given in good faith, but without commitment as conditions vary in every case. The information is provided solely for consideration, investigation and verification by the user. TMC do not except any liability for any loss, damage or injury resulting from its use (except as required by law). Please refer to the Material Safety Data Sheet before using products to ensure safe handling.