



Technical Product Information

Thermochromic Function: Irreversible

Product Name: **SC447**

Last Revision: 20/02/2018

Description:

SC447 is a solvent based paint showing a temperature related irreversible colour change. The temperature at which thermal paints change colour is related to the length of time exposed as well the actual temperature. A longer period of heating can initiate the same colour change that would occur after a short exposure at a higher temperature.

The initial colour is green and above 240°C the green colour darkens to almost black before the full colour change to a salmon pink at 447°C (temperatures related to 10 minutes heating).

The green colour has been seen as unchanged after 150 hours at 300°C in laboratory tests. Recent experience with pipelines held at 150 - 170°C have shown that the green colour will change to yellow after weeks of exposure at these temperatures.

Technical Details

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| Pigments | Thermochromic |
| Binders | Acrylic |
| Solids | 45% |
| Solvent | PMA, Xylene |
| Flash Point | 31°C (Pensky Martin closed cup) |
| Drying method | Solvent evaporation. Touch dry typically 20-30 minutes depending on ventilation / coating thickness. |
| Coverage | Giving 30u dry film allow 13-15 sqm per litre of paint |
| Application. | |

Paint may settle on storage and should be thoroughly stirred before use. Viscosity can be reduced by adding PMA solvent (CAS 108-65-6).

Before use the test surface should be thoroughly cleaned by removing all traces of grease, oil and loose material. Application direct to the metal surface is preferred method. If any kind of primer has previously been applied this should be carefully evaluated to ensure it is not affected by the thermal paint and in turn does not affect the colour change properties and adhesion of the thermal paint when heated. Zinc based primers have been used with thermal paint but compatibility should always be tested.

Information in this Product Data Sheet is compiled from our general experience and data obtained from various technical publications. Whilst we believe that the information provided herein is accurate at the date hereof, no responsibility for its completeness or accuracy can be assumed. Tests are carried out under controlled laboratory conditions. 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. We 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.

