

## KOHL'S Building Color Stability Analysis

Original Application Date: June 2007

### Background:

This Kohl's store is located in the Florida panhandle. The climate in this region ranges from the low teens in the winter to over 100° Fahrenheit with 100% humidity during the summer. This building was coated with the **TEXCOTE® COOLWALL® SUPERCOTE™ TEXTURED SYSTEM**, incorporating IR reflective pigment technology, in June of 2007, and was evaluated for color change over time. Two different colors were used; Spectrum Brown (Dark) and Monastery Brown (Light). Color readings were taken in different locations of the building using an X-Rite portable Spectrophotometer, Model SP60. All DELTA E values were calculated using CIE DELTA E criterion.

### Observations:

The average values of these color readings are shown in the chart below. Delta average values were taken after aging for 116 months (almost 10 years) in different locations of the building. Weather in Panama City, Florida, USA has an average annual rainfall of over 80". These walls have been exposed to weather conditions including heavy rain, ultraviolet light from the sun, high humidity and high winds. The **TEXCOTE® COOLWALL® SUPERCOTE™ System** demonstrates outstanding color retention of less than 4 delta units of change on all sides of the building with an average of just 3.1 units of change after almost 10 years of exposure. Conventional exterior paints, after these periods of exposure, typically have Delta averages of 15 units or more. These walls also do not show any sign of mold growth, including the North wall, nor chalking or cracking of the coating and show an excellent resistance to dirt pick-up. It should also be noted that Architects for Kohl's have represented that their client is saving nearly \$8,000.00 a year in the southern areas in cooling costs.



**Conclusion:**

TEXCOTE<sup>®</sup> COOLWALL<sup>®</sup> SUPERCOTE<sup>™</sup> colors have outstanding color retention and excellent water repellency after many years of exposure due to the Texcote<sup>®</sup> IR pigment technology. After almost 10 years of enduring the extreme northwest Florida weather conditions on the Kohl's building, they continue to exhibit an amazing ability to retain color fastness and resist color fading. Based on this data and data obtained in similar studies, surfaces coated with the TEXCOTE<sup>®</sup> COOLWALL<sup>®</sup> SUPERCOTE<sup>™</sup> system will continue to look as though newly painted for a significant length of time.



**Front of the Building, Northern Exposure**



**Eastern Exposure**



**Southern Exposure**



**Western Exposure**





The doors were painted the same colors using a conventional DTM (direct to metal) paint.

#### Spectrum Brown - Dark

##### INITIAL

|           |       |
|-----------|-------|
| <b>L</b>  | 56.24 |
| <b>a*</b> | 5.36  |
| <b>b*</b> | 10.51 |

#### SOUTH SIDE DOORS DARK BROWN

| AVERAGE |       |       |       | Delta Difference |
|---------|-------|-------|-------|------------------|
| 71.46   | 72.04 | 70.52 | 71.34 |                  |
| 2.9     | 3.19  | 2.85  | 2.98  |                  |
| 11.23   | 12.25 | 10.42 | 11.3  |                  |
|         |       |       |       | <b>15.61</b>     |

#### Monastery Brown – Light

##### INITIAL

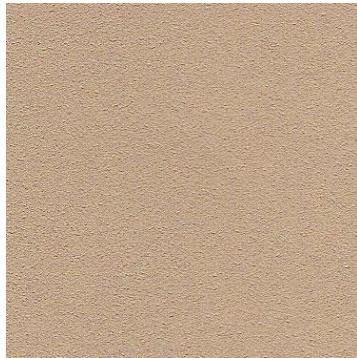
|           |       |
|-----------|-------|
| <b>L</b>  | 63.62 |
| <b>a*</b> | 4.94  |
| <b>b*</b> | 13.22 |

#### SOUTH SIDE DOORS LIGHT BROWN

| AVERAGE |       |       |       | Delta Difference |
|---------|-------|-------|-------|------------------|
| 78.82   | 77.56 | 79.2  | 78.53 |                  |
| 2.34    | 2.25  | 2.33  | 2.31  |                  |
| 12.53   | 12.93 | 13.36 | 12.94 |                  |
|         |       |       |       | <b>15.14</b>     |

**DE values after almost 10 years, TEXCOTE® COOLWALL® SUPERCOTE™**

| <b>KOHL's Colors</b>                       | <b>DL</b> | <b>Da</b> | <b>Db</b> | <b>DE</b>   |
|--|-----------|-----------|-----------|-------------|
| <b>SPECTRUM BROWN (Dark)</b>               |           |           |           |             |
| Average $\Delta E$ , North side            | 57.62     | 3.99      | 13.30     | <b>2.98</b> |
| Average $\Delta E$ , East Side             | 58.51     | 3.91      | 12.23     | <b>3.21</b> |
| Average $\Delta E$ , South Side            | 58.17     | 3.66      | 11.07     | <b>3.96</b> |
| Average $\Delta E$ , West side             | 58.15     | 3.82      | 12.10     | <b>2.30</b> |
| <b>Total <math>\Delta E</math> Average</b> |           |           |           | <b>3.11</b> |
|  |           |           |           |             |
| <b>MONASTERY BROWN (Light)</b>             |           |           |           |             |
| Average $\Delta E$ , North side            | 64.08     | 3.59      | 15.36     | <b>2.38</b> |
| Average $\Delta E$ , East Side             | 65.19     | 3.55      | 13.97     | <b>2.20</b> |
| Average $\Delta E$ , South Side            | 66.79     | 3.34      | 12.86     | <b>2.48</b> |
| Average $\Delta E$ , West side             | 65.47     | 3.29      | 13.56     | <b>2.32</b> |
| <b>Total <math>\Delta E</math> Average</b> |           |           |           | <b>2.34</b> |



**Monastery Brown**



**Spectrum Brown**

## Color Change (DE) for Texcote® CoolWall® SuperCoat™ After almost 10 Years.

