

Certified Translation from the German Language

TECHNICAL UNIVERSITY IN BRÜNN
FACULTY OF ARCHITECTURE
INSTITUTE FOR CONSTRUCTION ENGINEERING
Veverí 95, 662 37 Brno, Telephone: 541 147 440, 401, Facsimile: 541 240 996

**EVALUATION OF TECHNICAL THERMAL PROPERTIES OF
PAINT SPECIMENS
A, B, C, 1, 4, T, DK, BX
(8 specimens altogether)**

Principal:

POWER-COLOR spol. s r.o.
Sedláckova 247
301 00 Plzen
Identification number: 25223470
Tax number: CZ25223470
Person in charge: David Procházka

Testing laboratory:

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Head of the Institute:

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Brünn, June 2008

/Round seal with inscription:
"Technical University Brünn. Faculty of Architecture. Institute for Construction Engineering."/

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This report contains 6 DIN A4 sheets. The report was given to the principal in two copies.

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1. Subject of evaluation

The subject of evaluation is the determination of technical thermal properties of paint specimens of the principal

POWER-COLOR spol. s r.o.

Sedláckova 247

301 00 Plzen

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The evaluation is made in the following scope:

Determining the reflexion of paints A, B, C, 1, 4, T, DK, BX in the spectral range of 0.2 to 2.8 μm by using measurements.

The actual measurements were made by using a two-beam spectrophotometer Lambda 9 of Messrs. Firma Perkin-Helmer in cooperation with the Glass Institute in Hradec Králové.

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2. Measurement of the spectral reflexion ability of paints A, B, C, 1, 4, T, DK, BX (0.2 to 2.8 μm)

In the FAST laboratory the spectral reflexion ability of specimens A, B, C, 1, 4, T, DK, BX was measured on a paper of the dimensions 25 x 25 cm by using a device of Messrs. Perkin-Elmer, type Lambda 9 – see Fig. 2.

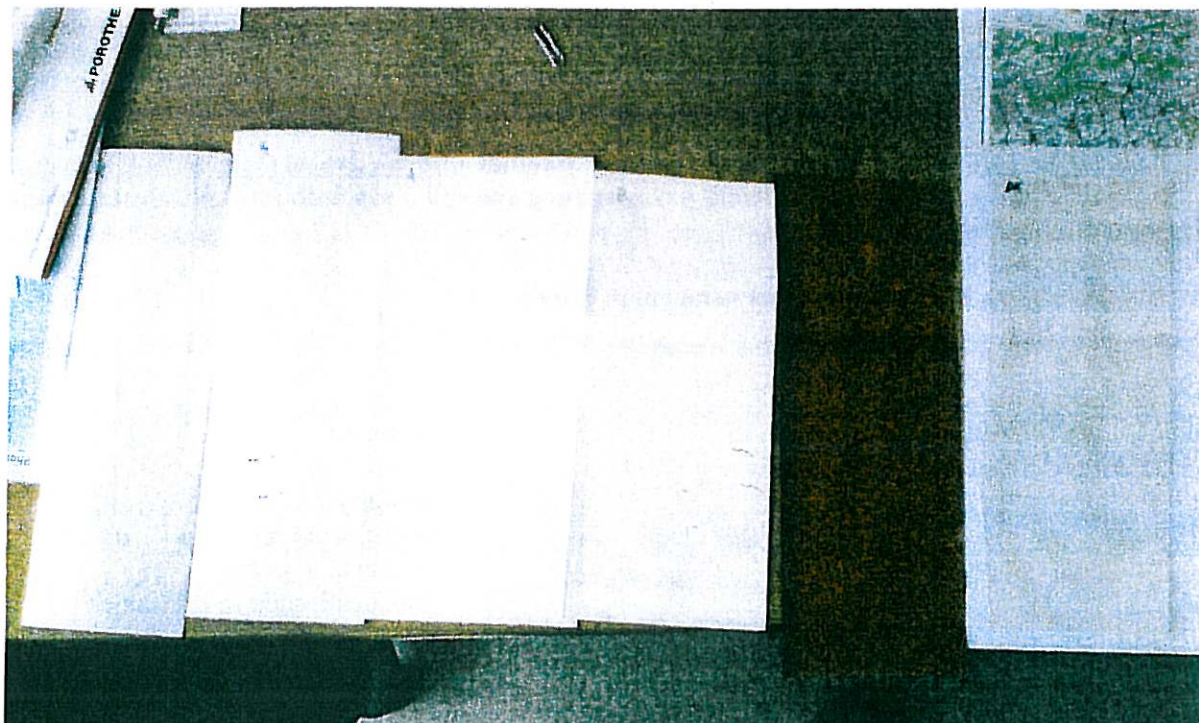
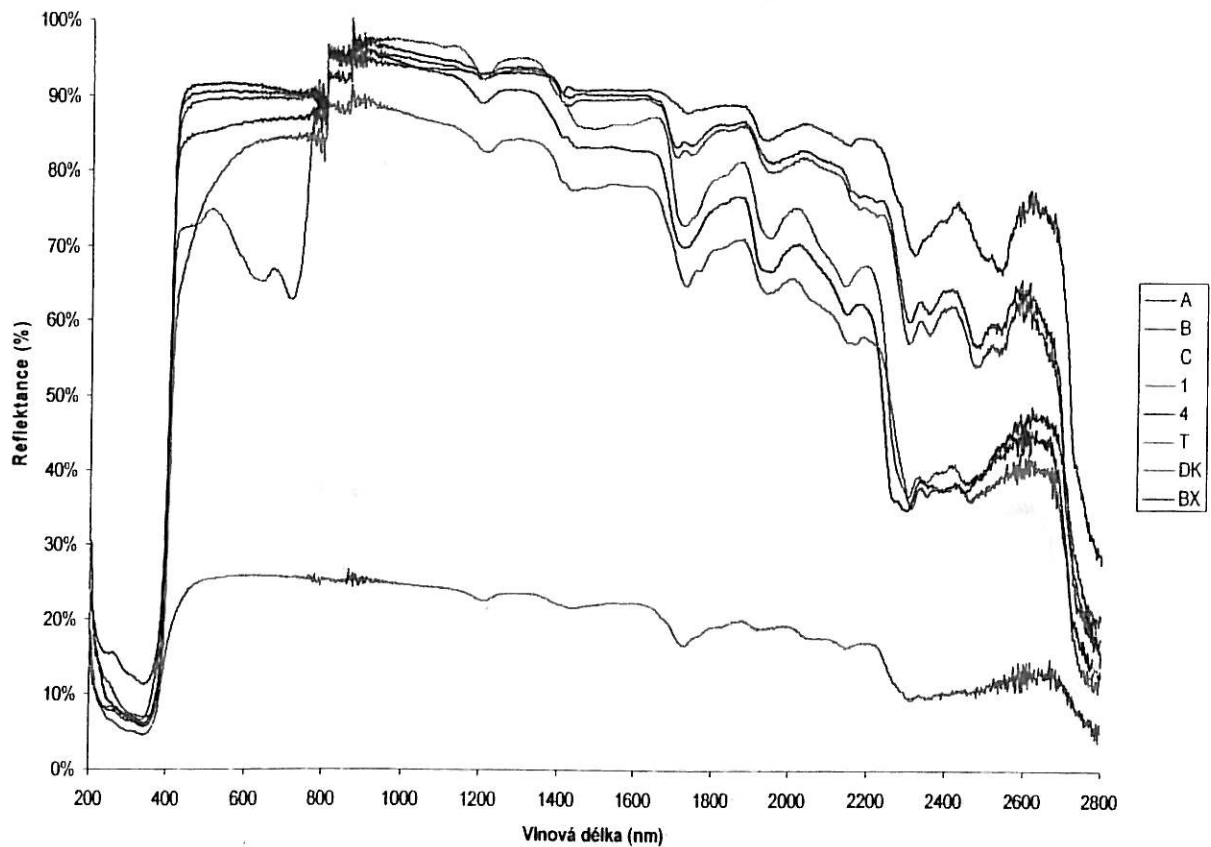


Fig. 1 Photo of the specimens measured

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The result is displayed in Fig. 2 for wave lengths of 0.2 to 2.8 μm .

Reflexion ability in %



Wave length in mm

Fig. 2 Spectral reflexion ability of the specimens

8 specimens altogether were measured – see description in Fig. 2. Repeated measurements were each made in five partial specimens of the respective paint.

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3. Summary

Due to the values measured an evaluation was made according to which the paint specimens furnished (A, B, C, 1, 4, T, DK, BX) are evaluated as follows:

The reflexion ability values measured lie between 10% and 100%. The anticipation that the reflexion ability in the short wave range, in which, using the example of the roof paint, the sun is reflected, has hence proved true.

Thus, a limitation of overheating is in particular to be anticipated in the case of the paints A, B, 1, 4, T and BX which show a reflexion ability of 70% to 100%.

It results thus from the values measured that the paints furnished display a passive thermal insulation with a saving of energy when cooling during the summer months.

Lecturer Ing. Miloš Kalousek, Ph. D.
/Signature illegible/

Brünn, June 2008

In my capacity as a translator of the Czech, German and English languages sworn in by the President of the Regional Court Munich 1 I herewith certify that the above translation of the original document written in the German language is in every respect correct and complete.

L. Santiago de la Cruz

19. JUNI 2008

