REPORT 08-12

OBJECT: testing the high temperatures resistance of decorated material

REQUESTED BY: Decoral System

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1. Purpose:

Testing the resistance of decorated material to prolonged high temperature exposition (90°C)

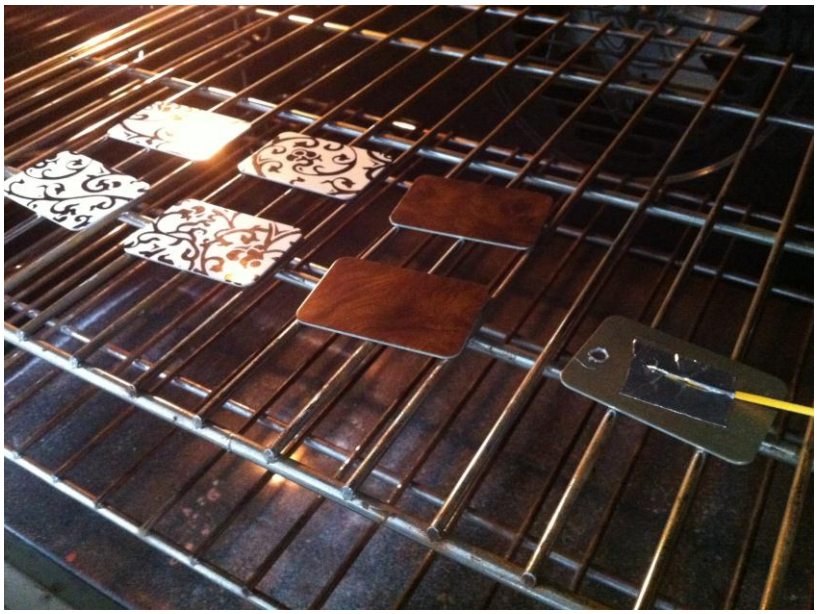
2. Samples description:

The samples to be tested were prepared with following materials:

ID Lab.	Sample type	Powder coating	Sublimatic film	Remarks
25261	Decorated aluminum plate	DS 401	2401/04L	
25262	Decorated aluminum plate	DS-0401S	2401/04L	
25263	Piece of aluminum profile with thermal break	DS 733	2401/04L	
25264	Piece of aluminum profile with thermal break	DS-0733S	2401/04L	
25265	Piece of aluminum profile with thermal break	PE 411+ DS 810	6044/09L	
25266	Piece of aluminum profile with thermal break	PE 411 + DS-0810S	6044/09L	

Equipment for the test:

Oven: electrical oven set to 90°C on ventilation mode



Picture 1: Samples during testing phase

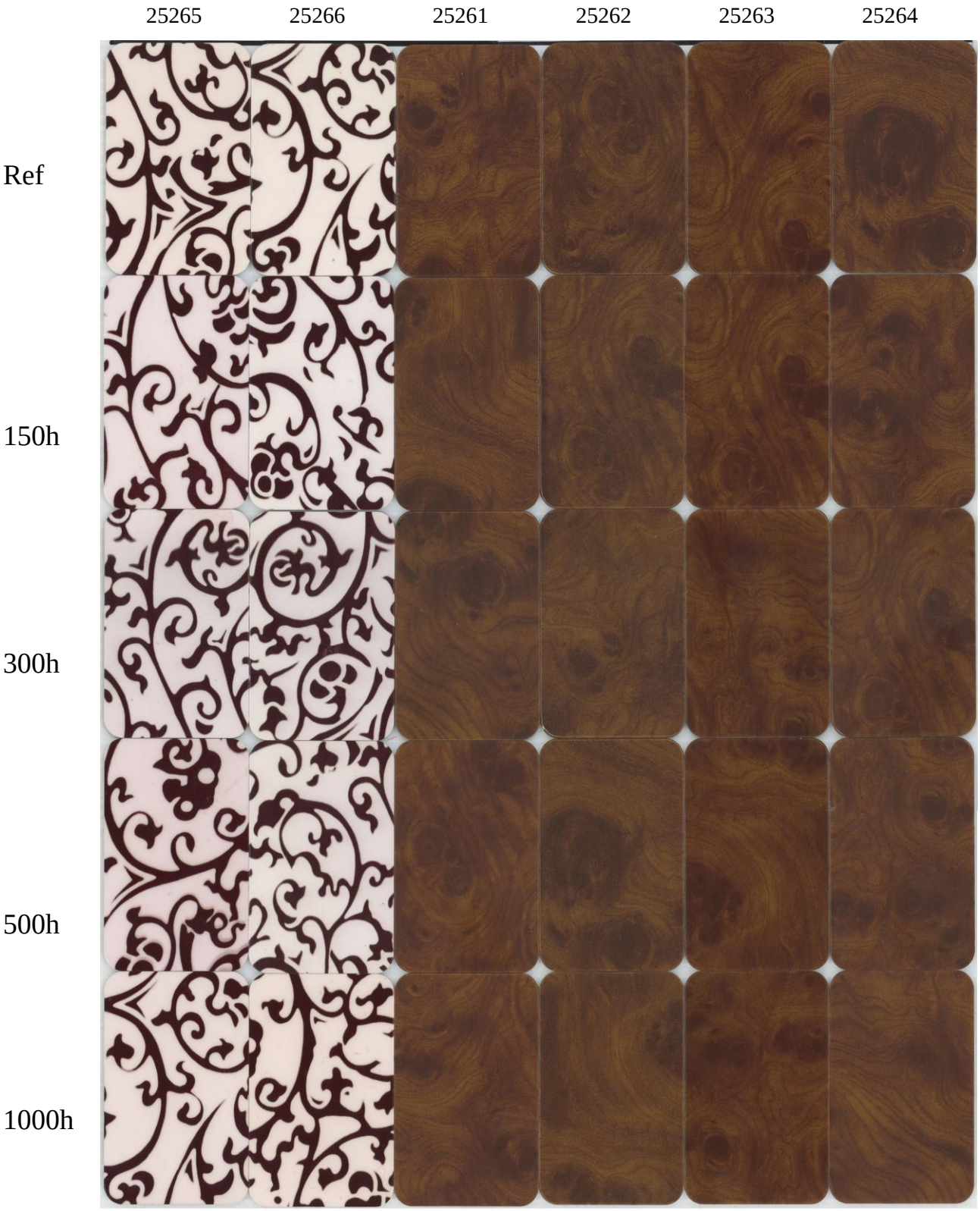
Measuring equipment:

K Probe: digital thermometer to verify the effective reaching and maintaining of the set temperature.

Picture 2: temperature monitoring probe

Test:

The samples were prepared using different powder-coating bases and exposed to constant heating (90°) in a oven for 1000 h. The test was split in intermediate checks (150 h each).



Picture 3: samples exposed to prolonged heating test.

4. Conclusions:

The samples, prepared and decorated in the lab show an excellent resistance to high temperatures in terms of colour variation and pattern definition.
No relevant differences are visible between the non-heated sample (ref. 1st row) and the exposed ones. Even the 1000 h heated samples do not show any variation, regardless of the used Decoral System raw material.
Therefore we can conclude, that the items, decorated through sublicromy process, using Decoral System materials, can be employed in all those fields of application, where the materials are subjected to 90°C heat sources.

Nevertheless for every specific application field a preventive verification by the final user is required.

5. Attachments:

- original samples (Lab archive)

Decoral Lab
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