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TEST REPORT TRANSLATION

CLIENT: **COMPOSITES GUREA, S.A.**

CONTACT PERSON: **ELENA ROJO**

ADDRESS: **Zalain Auzoa, 13 – Apartado 1
31780 VERA DE BIDASOA (Navarra)**

TESTED MATERIAL: **HPL COMPACT LAMINATE SAMPLES
PARKLEX FACADE S AND PARKLEX FACADE F**

PURPOSE OF THE REQUEST: **RESISTANCE TO UV LIGHT**

RECEIPT DATE: **16.07.2009**
TEST BEGINNING DATE: **17.07.2009**
TEST END DATE: **17.09.2009**
REPORT EMISSION DATE: **01.10.2009**

The results of the tests can only be applied to the material received and tested in this Research Centre on the indicated dates.

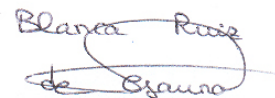
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Susana Rodríguez
Analyst



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Blanca Ruiz de Gauna
Joint Technologies Manager

1. TEST SPECIMENS

16 (2 by reference) HPL compact laminate samples with the reference PARKLEX FACADE S and PARKLEX FACADE F belonging to the company “**COMPOSITES GUREA, S.A.**” was received at CIDEMCO on 16th of July of 2009, with the following references:

- GOLD
- AMBAR
- RUBÍ
- ANTRA
- COPPER
- ONIX
- SILVER
- QUARTZ

2. TESTS REQUESTED

The requested test is the following:

- ◆ Resistance to UV light (exterior grade laminates) according to UNE-EN 438-2:2005 Section. 28

3. CARRIED OUT TESTS

- ◆ **Resistance to UV light (exterior grade laminates) according to UNE-EN 438-2:2005 Section. 28**

On take two test specimens of appropriate size for the camera specified in UNE-EN ISO 4892-3:2006. One specimen is exposed to light, and the other is kept in dark conditions.

The lamps used are UV-B lamps of 40 W with a peak emission at 313 nm and a spectral energy distribution as specified in UNE-EN ISO 4892-3:2006.

The specimens are cycled in accordance with exposure mode 1 of UNE-EN ISO 4892-3:2006. The cycle consists of 4 hours of dry UV exposure at a black-standard temperature of $(60\pm 3)^{\circ}\text{C}$ followed by 4 hours of condensation exposure, without radiation, at a black-standard temperature of $(50\pm 3)^{\circ}\text{C}$.

Test duration is 1500 hours.

The following parameters are evaluated:

1. **Contrast:** the contrast between the exposed and unexposed test specimens was observed and records it in terms of a grade on the grey scale.

EG=1 Very strong change

EG=2 Strong change

EG=3 Important change

EG=4 Change beginning

EG=5 Without change

2. **Appearance:** the surface of the test specimen was observed by naked eye, at a distance of approximately 50 cm. The appearance was assessed in comparison with the control specimen with the following rating scale:

Rating 5: No visible change

Rating 4: Change of gloss only

Rating 3: Hairline surface cracks and/or erosion of surface delamination

Rating 2: Surface cracks

Rating 1: Blistering and/or delamination

4. RESULTS

- ◆ **Resistance to UV light (exterior grade laminates) according to UNE-EN 438-2:2005 Section. 28**

The results for contrast between the exposed and unexposed test specimens, expressed according to grey scale are shown in table I

Table I - Contrast

Reference		Grey scale
PARKLEX FACADE S and PARKLEX FACADE F	GOLD	4/5
	AMBAR	5
	RUBÍ	5
	ANTRA	5
	COPPER	5
	ONIX	5
	SILVER	5
	QUARTZ	5

In the following table, the obtained results are showed about the appearance of the specimens:

Table II - Appearance

Reference		Evaluation
PARKLEX FACADE S and PARKLEX FACADE F	GOLD	5
	AMBAR	5
	RUBÍ	5
	ANTRA	5
	COPPER	5
	ONIX	5
	SILVER	5
	QUARTZ	5