

PILOT TEST CERTIFICATE Number 9624-2016

CUSTOMER: **REVESTIMIENTOS TÉCNICOS SOSTENIBLES, S.L. (RTS)**

ADDRESS: **Polígono Industrial El Torno - C/ Alfareros 9. 41710 UTRERA (Sevilla)**

TESTED MATERIAL: **ZERAMIC Extrem W**

PROCEDURE: **Pilot Test to define the insulating capacity of material**

DATE OF ISSUE OF CERTIFICATE: **20/07/2016**

REFERENCE REPORT **7035-2016**

It gives off a density applied from this pilot test for average of 467 microns of the product **ZERAMIC Extrem W** and the environmental conditions registered, it gets a reduction of inner temperature of the cover surface of an industrial warehouse from until **8,00 °C** in average and a decrease of heat profit from until **60,76 W/m²** on average for a cover of these characteristics.



Fdo.: Jaime Corraliza Solomando
Arquitecto Técnico (Coleg. Nº 7633)
Responsable Ensayo



Fdo.: Pablo Álvarez Troncoso
Lcdo. CC. Químicas (Coleg. Nº 3344)
Director Técnico

METHODOLOGY

As the pilot test was done, it's determined the average temperature "in situ" of the treated and untreated surfaces in the building using a themographic equipment in order to study its performance in the presence of temperature variations and incidence of the solar radiation. The determinations are carried out in the inner surface of the metallic cover (pre-lacquered steel of both sides) of an industrial warehouse where a zone has the applied product and the other one without applying to study the differential performance. The results have been analysed quantitatively to evaluate the effectiveness of lining.

The heat penetrates from outside the cover through two components: the heat radiating and the heat transferred by air convection:

$$Q_{tot} = Q_{rad} + Q_{conv} = 4\varepsilon\sigma T_m^3 \Delta T_r + h_c \Delta T_a$$

The parameters to calculate the heat flows are deducted in the above equation.



MAXIMUM & MINIMUM VALUES AND AVERAGES

	Inner Temperature [°C]		
	without product	with product	Difference
Max.	48,72	38,91	9,81
Min.	35,14	28,43	6,71
Average	43,14	35,14	8,00

	HeatTransfer [W/m ²]		
	without product	with product	Difference
Max.	90,80	8,90	81,90
Min.	-2,00	-23,60	21,60
Average	57,96	-2,80	60,76

