

# TEST REPORT

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Laboratorio de Análisis y Ensayos  
FUNDACION CARTIF  
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Tfno.: 34 983 54 89 17 Fax: 34 983 54 65 21 e-mail: [juaferr@cartif.es](mailto:juaferr@cartif.es)



## SCOPE

Test of NO<sub>x</sub> and Trichloroethylene removal for floor tiles according the request SE-LAE-10/056.

## CUSTOMER'S INFORMATION

CONTACT PERSON: Aingeru Remiro

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ADDRESS: Barrio El Arenao s/n

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Function: Ingenieer Researcher

Function: Technical Director

Name.: J. Feroso

Date: June 7th, 2010

Name.: J.C. Fernández

Date: June 7th, 2010

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## SAMPLING

CARRIED OUT BY: CUSTOMER  LAE

## DESCRIPTION OF THE ITEMS TESTED

Received Samples were four different types of floor tiles (two pieces of each one).  
These test

Code	Sample
REPBE1	Beige sample
REPBE2	Beige sample
REPBE3	Beige sample
REPBE4	Beige sample
REPHA1	

The following picture shows one of each sample received.



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## RESULTS

### NO<sub>x</sub> Removal test

#### NO<sub>x</sub> removal yields of the samples

Sample		Relative humidity			
		5 %	25 %	50 %	75 %
REPBE1	NO <sub>x</sub> removal	64,3	62,2	56,5	52,3
	NO oxidize	0,00	0	4,5	0
REPBE2	NO <sub>x</sub> removal	67,4	59,1	52,8	37,4
	NO oxidize	0,00	0	3,6	5,8
REPBE3	NO <sub>x</sub> removal	63	53,4	45,5	24,4
	NO oxidize	0,00	1,2	6,1	9,4
REPBE4	NO <sub>x</sub> removal	66,3	60	50	41,5
	NO oxidize	0	0	4,4	4,5
REPHA1	NO <sub>x</sub> removal	46,1	39,3	28,9	21,4
	NO oxidize	1,2	2,3	1,2	3,5

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## Nitrate and Nitrite analysis

Sample	Nitrate	Nitrite
BE1	No aplica	N.D.
BE2	No aplica	N.D.
BE3	No aplica	N.D.
BE4	No aplica	N.D.

\*N.D. - Non Detected

## TCE Removal test

Sample	[TCE] <sub>in</sub> (ppm)	% CV	[TCE] <sub>out</sub> (ppm)	% CV	% TCE Removal
BE1					
BE2					
BE3					
BE4					

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## Comments

**Yields definitions.** In order to calculate removal yields of NO<sub>x</sub> and TCE following expressions have been used.

$$\% \text{ NO}_x \text{ Removal} = \frac{[\text{NO}_x]_{\text{ent}} - [\text{NO}_x]_{\text{sal}}}{[\text{NO}_x]} \times 100 \quad (\text{Ec. 1})$$

$$\% \text{ NO Oxidize to NO}_2 = \frac{[\text{NO}_2]_{\text{sal}}}{[\text{NO}]_{\text{ent}}} \times 100 \quad (\text{Ec. 2})$$

$$\% \text{ TCE Removal} = \frac{[\text{TCE}]_{\text{ent}} - [\text{TCE}]_{\text{sal}}}{[\text{TCE}]_{\text{ent}}} \times 100 \quad (\text{Ec. 3})$$