

# CERTIFICATE

## La empresa

**Torres Espic, S.L.**  
Polígono Industrial de Picassent.  
Calle Nº 5; Casillero 86  
46220 Picassent (Valencia), SPAIN

está autorizada, según el STANDARD 100 by OEKO-TEX® y nuestro informe de ensayo nº. **20170K1388**, a usar la marca STANDARD 100 by OEKO-TEX®



## para los siguientes artículos:

**Espumas de poliuretano flexible Bassic®, Resilén®, Resilén® Plus, Ikon®, Neropur®, Visco Neropur®, Viscool® y espumas de poliuretano flexible con aceite de soja. (Densidad: 20-60 Kg/m<sup>3</sup>). (Excepto espumas ignífugas). Altura max: 123 cm.**

Los resultados de la inspección realizada según el STANDARD 100 by OEKO-TEX®, Apéndice 4, **clase de productos I**, muestran que los artículos mencionados anteriormente cumplen los requisitos ecológico-humanos del STANDARD 100 by OEKO-TEX® actualmente establecidos en el Apéndice 4 para artículos de bebé.

Los artículos certificados cumplen con requisitos del anexo XVII del REACH (incluyendo el uso de colorantes azo, níquel, etc...) así como con los requisitos americanos en cuanto al contenido total de plomo en artículos de niños (CPSIA; con excepción de accesorios hechos de cristal).

El titular de este certificado se compromete con el instituto, mediante una declaración de conformidad según la norma ISO17050-1, a colocar la etiqueta STANDARD 100 by OEKO-TEX® únicamente en los artículos que se correspondan con las muestras ensayadas. La conformidad se comprueba mediante auditorías.

**El certificado 2002AN3765 es válido hasta el 15.12.2018**

Alcoy (Alicante) España, 17.01.2018

Silvia Devesa Valencia  
Subdirectora Innovación

Isabel Soriano Sarrió  
Jefa Área Innovación



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Espana



Akkreditiert durch  
Zentralstelle der Länder  
für Gesundheitsschutz  
bei Arzneimitteln  
und Medizinprodukten  
ZLG-P-715.98.13

**AKS** Akkreditierung: AKS-PL-21301  
Verzeichnis: www.aks-hannover.de  
Staatliche Akkreditierungsstelle Hannover

**Cytotoxicity Test to DIN EN ISO 10993-5  
SOP 09-001**

2010-04-29

## Test Protocol

**Identification of the test laboratory:** SN 9913a

**Delivery date:** 20.01.2010

**Product:** RESILÉN<sup>®</sup>

**Customer:** Torresespig

**Test method:** Cytotoxicity of eluates according to the DIN EN ISO 10993-5:2009-10  
Biological evaluation of medical devices  
Part 5: tests for cytotoxicity: in vitro  
SOP 09-001

**Test time period:** 2010-03-01 – 2010-03-03

**Test conditions:** Examining climate: 22,3 °C / 30 % rel. humidity  
Incubation: 24 hours  
The test was carried out after a standard washing procedure according EN ISO 6330:2000.

SN 9913a page 1 of 3

## **Description of the method**

**Extraction conditions:** 0,9 g test product were diluted with 9 ml MEM + 9 % serum +1 % antibiotic solution at 37°C for 24 h = **extraction medium**

**cell culture** FI-cells are derived from the human amnion. The stock cultures were carried out into 250 ml culture flasks (Greiner GmbH). The cells were trypsinised all 4 days. Only cells up to 100 passages were used.  
Trypsinised cells were seeded in tissue culture plates.  
The culture medium consists of MEM (Minimum Essential Medium) supplemented with 9 % calf serum, 1 % antibiotic solution (Penicilline G, Streptomycin sulfate, Neomycin) and L-glutamine.

**Exposition** After 24hours of cultivation the cells were available as monolayer. A medium change with extraction medium was accomplished. Therefore the culture medium was decanted and the extraction medium carefully pipetted into the wells (0.1 ml per well).  
An incubation for 24h is following.

**Measuring principle** Vital cells incorporate the dye neutral red. Destroyed cells cannot incorporate the dye and remain unstained. The intensity of colour of the elution solution can be measured with a photometer.

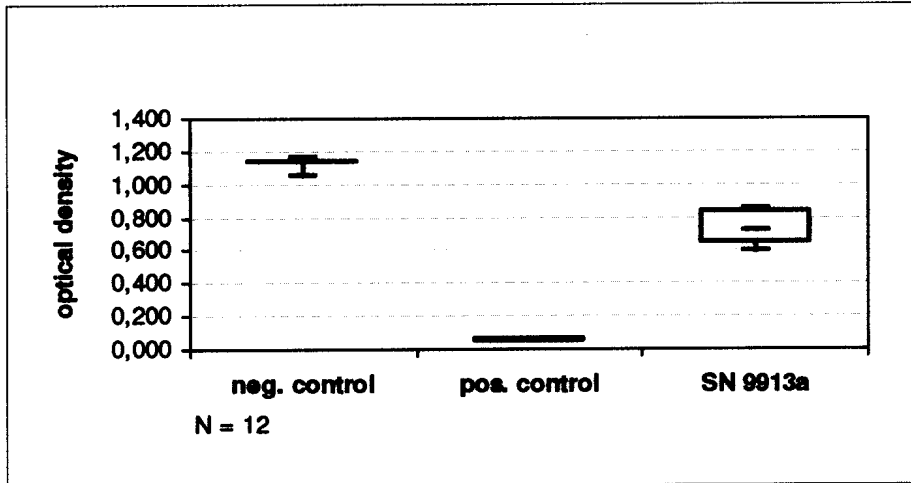
**Measurement** At the end of the incubation time the microtiterplate will be washed with PBS (Phosphate Buffered Saline). Culture medium containing the dye neutral red (50µg/ml) was given to the cells. After an incubation time of 3 hours the microtiterplate was washed again to remove the spare dye. With a special elution solution (1% acetic acid in 50% ethyle alcohol) the dye was solved out of the cells. After 1 hour of elution the photometric measurement was conducted.

**Controls** As a negative control culture medium without a test solution was established.  
To verify the sensitivity of the test system a positive control (1.5mg/ml Sodiumdodecylsulfate) in culture medium was exposed in the cell culture system.

**Evaluation** The optical density of 12 parallel tests was determined and used for statistical evaluation.

## Results

**Figure 1: box plot of the cellvitality**



**Table 1: Descriptive statistics (cellvitality)**

	N	Mean	cell vitality (%)	minimum	maximum	Std. Deviation	p*
Negative control	9	1,126	100,00	1,056	1,166	0,035	-
Positive control	9	0,053	4,72	0,051	0,056	0,002	-
SN 9913a	12	0,736	65,42	0,591	0,850	0,106	0,8695

\*U test (Man Whitney) vs. Control

HygCen  
Centrum für Hygiene und medizinische Produktsicherheit

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**Espana**

**2010-04-29**

**RESILÉN**

## **Judgement**

**After testing the Cytotoxicity of the RESILÉN® according to the DIN EN ISO 10993-5, 2009 -- test report of 2010-04-29 ( Testreport SN 9913a ) -- I give the following statement:**

**An evaluation of the scope of biological testing was carried out as per EN ISO 10993-1:2009.**

**The intended use of the product, declared by the producer, involves contact with intact skin for a period of less than 24 hours. To evaluate the biocompatibility of the product, a cytotoxicity test as per EN ISO 10993-5 (2009) was therefore considered sufficient.**

**Any knowledge to be gained from further biocompatibility testing with this product would not justify the unnecessarily high level of harm to experimental animals involved. As per EN ISO 10993-1:2009, chapter 3.6 and EN ISO 10993-1: 2009, chapter 5.1 b) 7), such tests will therefore not be performed in these cases.**

The type and scope of the tests performed complies with the specifications as per EN ISO 10993-1:2009.

From the tested material only minimal cytotoxic compounds were extracted at 37°C. The extract of the test material reduced the cell growth to 65.42% of control. This is statistically not significant. (Fig. 1 and Tab. 1).

Using the test material as mentioned before described by the manufacturer no cytotoxic effects should be expected.

A handwritten signature in black ink, consisting of several fluid, overlapping strokes that form a stylized, somewhat abstract shape.

Prof. Dr. med. H.-P. Werner