



TRO  
CEL  
LEN

INSULATION

# LIFETIME AND REFERENCES OF TROCELLEN

40 years of energy saving

Thermal-Acoustic Insulation



# A good product can be recognised by the long-term preservation of its quality

## THE PROJECT AND THE DURATION REQUIREMENT

In all projects of the insulation and construction sectors, a guarantee of the product used is requested, and this presupposes a measure/technical evaluation of its characteristics over time.

Legal regulations attempt to approach reality by describing this behavior through laboratory measurements by mathematic extrapolations of the measured value, or through simulations by submitting the material to accelerated ageing, in extreme conditions of temperature, and/or pressure. They are necessary to support provisional calculations, especially in the absence of real data, when, in terms of application, product and legal regulations they are only in the initial stage.

However we should consider that they are based on conventional and mediated choices, and the real situation could be, case by case, slightly different.

Furthermore, they do not take into account installation, which significantly influence the performances of the final application, both after installation and long-term.

As we all know, on-site verifications are becoming more and more frequent, also spurred by modern laws and regulations.

This is an important step ahead toward the verification of the application's real performance, and also makes it possible to obtain information about its life and that of its components (by conveniently separating the contribution of the components: materials, type of structure and installation quality).

We, as producers, feel involved in this activity, with the intention of supplying the best technical support to our customers and designers, also because we are convinced that a good product can be seen in the preservation of its qualities through time.

Like a good wine, for instance.



An example for all:

### **1985 - Heating station insulated with Trocellen.**

Twenty-three years ago Italkalor insulated the heating station of the hothouses of cooperative company "L'Ortofrutticola" of Albenga (Savona) by a plumber of Borghetto S. Spirito.

The zone's agent and technical assistance supervised all the stages, starting from the choice of the most suitable product through to installation. After performing its duty for 20 years, the activity of the heating station was stopped.

We had learned that it was possible to verify the quality of the insulation, still present in the system before complete putting out of service. We therefore went there to make an on-site inspection.

# Trocellen Vintage

We are involved in many projects on an international scale too and this enables us to know many applications and make best use our experience in support of experimental measures.

In the insulation and building sectors, these activities have developed in over 30 years, especially thanks to companies better known with the name Italkalor, Weiss Industriale, HT and Polifoam.

We can therefore affirm that some types of **TROCELLEN** products have exceeded 10 years of life in different situations: underground as an acoustic anti-vibration element for city tram lines; or in the extreme conditions of the desert or of Siberia, as a water shield in car doors. But how can we demonstrate that it has been used for more than 30 years to insulate air duct and pipes to help the energy saving?

Information on the life of our products is almost always obtained from the feedback of our custom.



## THE PRODUCT USED WAS TROCELLEN AL CL1 UP TO 50 mm THICK

### 1985

The metal finish, to make the surface scratch resistant, enhances the overall look and the brightness of the room.

What the eyes see is also important!

The general view shows clean, well-organized work performed by professionals, respecting the system insulation rules.

Even though today more attention would be given to valve insulation.



### 23 YEARS LATER

The insulation and finishes are still in place and able to perform their function.

A surface in good condition without any cracks despite time and dust.





The current condition of the system shows that the insulation was able to significantly exceed 23 years of effective use. However the appearance could deceive.

We therefore wanted to verify, in the laboratory, the thermal conductivity of the 23-years old product, comparing the data with those measured with the internal method and with instrumentation already in use in 1983. The value has not changed: this measurement is the effective proof of the long life of our product.

PROPERTY	UNIT	1983	2008
Thermal Conductivity	W/mk	0,0394	0,0394

Here's another example:

We're talking about another laboratory analysis performed at FIW in Munich in 2003, on a three-years-old foam of our German plant, which had obtained the same lambda value as that when it was produced.

## EXTRACT OF THE CERTIFICATE HT TROPLAST AG - 20.5.03

"Based on the request of the market we investigate the change of the heat conductance additional by an independent Laboratory the FIW (München, Germany). The measurements were made in accordante to DIN 52 616.

We have tested an TROCELLEN RD 30 W3C F4 B1 in grey, 26mm. The first set of tests were done in september 1999. After the test the sample was stored indoor for 3,5 years. Then the same sample was tested twice at both laboratories again.

The thikness has been changed about 2% or 0,5mm. The mass has been changed by 1% or 2g. So here no relevant changes of the product can be found.

The scattering within the measuring of the different labs and the precision of the measuring is smaller than 5%. So the effect of ageing within 3,5 years is clearly smaller than the precision of the determination of the heat conductance. So pratically no ageing or change of the heat conductance can be found."

## CONCLUSION

The above mentioned data supports the technical motives of the durability of **TROCELLEN** products, and enhances their application, ensuring the energy saving is in line with the project's goals.





# Trocellen application references

## HOTELLERIE/LEISURE

Albergo Vittoria - Sorrento (Italy)  
Hotel Italia / NH Hotels - Timisoara (Romania)  
Health Spa - Podhájská (Slovakia)  
Tartálpark - Orosháza (Hungary)

## THEATRES

National Theatre of Bucarest (Romania)

## COMMERCIAL

Mall "Il Castello" - Ferrara (Italy)  
Agrobusiness Center - Bologna (Italy)  
Ipermarket "Lando" Warehouses, stores of Mira and Rosolina (Italy)  
Mall "La Fattoria" - Rovigo (Italy)  
Mall "Smart" - Galliera Veneta (Italy)  
Shoes Center "Pittarello" - Vienna (Austria)  
Tacconi Sport (Sport Store) - Marcon (Italy)  
Supermarket "Do-Gal" - Scorze' (Italy)  
Stores "Coop" of Cascina, Lastra a Signa and Perugia (Italy)  
Mall "Le Vele" - Soverato (Italy)  
Mall "A.Z." - Catanzaro (Italy)  
Plodine Mega-Market - many stores in Croatia  
Mall - Bratislava (Slovakia)  
Mall "Polus Constanta" - Constanta (Romania)  
Mall "Polus Brasov" - Brasov (Romania)  
Mall "Esplanada" - Bucarest (Romania)  
Shopping Complex - Poznan (Poland)  
Mall "Bonarka" - Krakow (Poland)  
Mall "Luxus Áruház" - Budapest (Hungary)

## HOSPITAL

Hospital "Bel Colle" - Viterbo (Italy)  
Oncological Hospital "S. Raffaele" - Rome (Italy)  
New "Polo Ospedaliero" - S. Bonifacio (Italy)  
Hospital "S. Camillo" - Rome (Italy)  
Hospital "Madonna Delle Grazie" - Matera (Italy)  
Hospital "Di S. Giovanni Rotondo" - Foggia (Italy)  
Civilian Hospital of Cassino - Frosinone (Italy)  
Civilian Hospital of Caserta, Heart Surgery Dept. (Italy)  
Clinic "Villa Serena" - Catanzaro (Italy)  
Ext. Civilian Hospital of Avellino (Italy)  
Hospital of Varese "Opera Macchi" (Italy)  
F.I.R.C. Institut, Italian Federation of Cancer Research - Milan (Italy)  
Hospital "Careggi" - Firenze (Italy)  
Hospital "Unico" of Todi - Marsciano (Italy)  
Hospital of Pisa (Italy)  
Hospital of Deva (Romania)  
Hospital of Pécs (Hungary)



## INDUSTRIAL

Pharmaceutical Industry (Ex Ciba Geigy) "Novartis" - Torre Annunziata (Italy)  
"Benetton" Industry, Plant of Castrette di Ponzano (Italy)  
Food Industry "Rovagnati" - Villasanta (Italy)  
Pharmaceutical Industry "Astra Zeneca" - Caponago (Italy)  
Industry "Bosch", Plant of Bari (Italy)  
D.S.M. - Capua (Italy)  
"Chiesi Farmaceutica" Research Center - Parma (Italy)  
"Hangkok" Plant - Dunaújváros (Hungary)  
"Sote II" Plant - Budapest (Hungary)  
"Ge Electric" Plant - Budapest (Hungary)

## MILITARY

"Base Aereonavale Nato" - Sigonella (Italy)  
"Base Aerea Nato" - Aviano (Italy)  
"Pratica di Mare" Airport - Rome (Italy)  
"Amendola" Military Airport - Foggia (Italy)

## OFFICES

New "Monte Dei Paschi" Bank Offices - Siena (Italy)  
Financial Offices 2000 - Cosenza (Italy)  
Department of Motor Vehicles Offices - Rome (Italy)  
Origó Film Studio - Budapest (Hungary)  
Offices "Bonarka 4 Business" - Krakow (Poland)

## SCHOLASTIC

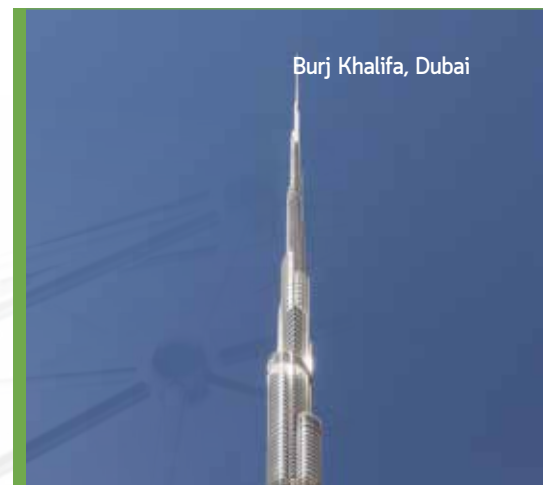
University of Parma, "Facoltà di Economia E Commercio" (Italy)  
University of Napoli, "Facoltà di Ingegneria" (Italy)  
University of Palermo, "Facoltà di Architettura" (Italy)  
Biomedical Campus of Trigatoria - Rome (Italy)

## RESIDENTIAL

Burj Khalifa - Dubai (Uae)  
Condominium "Daimler Mercedes" - Kecskemét (Hungary)  
Condominium "Villa Nova" - Spišská Nová Ves (Slovakia)

## Burj Khalifa

Burj Khalifa is a skyscraper in Dubai, United Arab Emirates, and is one of the tallest man-made structure in the world having 829.8 m height and 163 floors. Trocellen was providing the construction with advanced and long lasting HVAC solutions.



## INTERNATIONAL LOCATIONS

Lead Plant

### TROCELLEN Italia S.p.A.

Sales office  
Via Dante, 3  
20867 Caponago (MB), Italy  
Ph. +39 02 959 621  
Fax +39 02 959 62 235

### TROCELLEN GmbH

Mülheimer Straße 26  
53840 Troisdorf, Germany  
Ph. +49 2241 2549000  
Fax +49 2241 2549099

### TROCELLEN Ibérica S.A.

C/Avila, s/n  
28804 Alcalá de Henares, Spain  
Ph. +34 91 885 55 00  
Fax +34 91 885 55 01

### Polifoam Plastic Processing Co. Ltd

Táblás u. 32  
1097 Budapest, Hungary  
Ph. +36 1 347 98 00  
Fax +36 1 280 67 08

### TROCELLEN S.E.A. Sdn Bhd

Lot 2213, Kg. Batu 9 Kebun Baru,  
Jalan Kasawari  
42500 Telok Panglima Garang  
Selangor Darul Ehsan, Malaysia  
Ph. +60 3 3122 1213  
Fax +60 3 3122 1211

### TROCELLEN France

Bureau de vente  
2 rue de Comméres,  
Immeuble les Peupliers  
F-78310 Coignères, France  
Ph. +33 (0) 130 85 93 40

## TROCELLEN\*

Trocellen is the first choice European polyolefin foam-solution provider. Through continuous innovations and successful partnerships we dedicate ourselves to one goal: protecting and providing comfort for people.

After more than 40 years, with 600 employees at seven sites and many cooperating companies, various partner universities, institutes and designers we offer solutions for our business partners in various industries such as construction and insulation, automotive, leisure and professional sport, adhesive tapes, footwear and packaging.

\*Trocellen is the member of Furukawa Group.

[insulation@trocellen.com](mailto:insulation@trocellen.com)



FOLLOW US ON  
TWITTER



CONTACT US ON  
LINKEDIN



[www.trocellen.com](http://www.trocellen.com)

Download Trocellen App for free  
from the Official Website

50° 49' N	07° 09' O	Germany
40° 28' N	03° 21' O	Spain
41° 53' N	12° 28' O	Italy
47° 30' N	19° 02' O	Hungary
02° 54' N	101° 28' O	Malaysia
35° 40' N	139° 49' O	Japan FURUKAWA

