



Agenda

Introduction to Ecovar and Berkin

Conventional termite treatment currently used in UAE

Latest technology in termite control, case studies & research

Benefits of Termifilm Vs conventional chemical spray treatment to the environment stakeholders.

Benefits to UAE it's environment, it's residents and property owners as well as its overall economic value and industry reputation.

Ecovar

The Leading Supplier Of Pest Management Solutions & Founder of PestWorld East with NPMA

- **What we do:** We enable with knowledge, products and tools to successfully eliminate and get control of any pest infestation.
- **Products You Can Trust:** We are dedicated to bringing you the latest technologies and largest range of innovative products.
- **Expert Technical Support:** Headed by an experienced entomologist, we are committed to supporting you every step of the way – from pest identification to independent and unbiased advice on product selection to helping you solve the problem.
- **Pest Control Training**
- We offer a variety of courses for different levels of experience and knowledge from basic principles of pest control to advanced techniques

Our Partners:



Groupe Berkem in brief

SME

Almost **230**
collaborators



in 2020
53 M€
OF TURNOVER

10,8%
turnover for investments and R&D budget
Almost **25%** turnover for export



A FRENCH
CHEMICAL
COMPANY
SINCE 1964



5 business
driven by
5 subsidiaries



3 INDUSTRIAL SITES

Gardonne (24)
La Teste-de-Buch (33)
Chartres (28)



● *Headquarter: Blanquefort (33)*



8 DISTRIBUTION AGENCIES

6 in France
1 in Belgium
1 in Spain



Current Challenges in Pre-Construction Termite Control



It Profit's
General
Contractors &
PCO



Unethical
treatment
done by the
lowest bidder



Cost of
spraying
chemical +
H2O far
exceeds
current going
rate of AED
1/1 M2



Post
construction
Termite
problems at
an all time
high



Damages to
property
owners'
overtime



Continuous
Headache to
Municipalities
over miss
applications
done at pre-
construction
sites

A wide-angle photograph of a desert landscape. The foreground is dominated by golden sand dunes with intricate, wavy patterns of ripples. The dunes extend into the distance, creating a sense of depth. The sky is a clear, pale blue, suggesting a bright, sunny day. The overall scene is serene and expansive.

Conventional termite treatment
currently used in UAE



Consultant Approval & Specifications



Contractor Tenders for a 10yr Guarantee Project



PCO bids <math><1\text{dh}/1\text{ m}^2</math> to Win Contract



What Should Happen

1. Dilute chemical in water as per UAE label most are (1/400L)
2. Spray pre-construction site: 1L/80-100 sqm with 6' min flow
3. Lay plastic sheet to protect soil & concrete
4. Lay concrete
5. Spray again at ground level
6. Spray pipes above ground level
7. Issue 10- yr certificate



What Happens in Reality

1. Dilute chemical in water as per UAE label most are (1/400L)
2. Spray pre-construction site: 1L/ ? sqm with NO flow
3. Maybe Lay plastic sheet (depending on contractor)
4. Issue 10 yrs certificate
5. Lay concrete

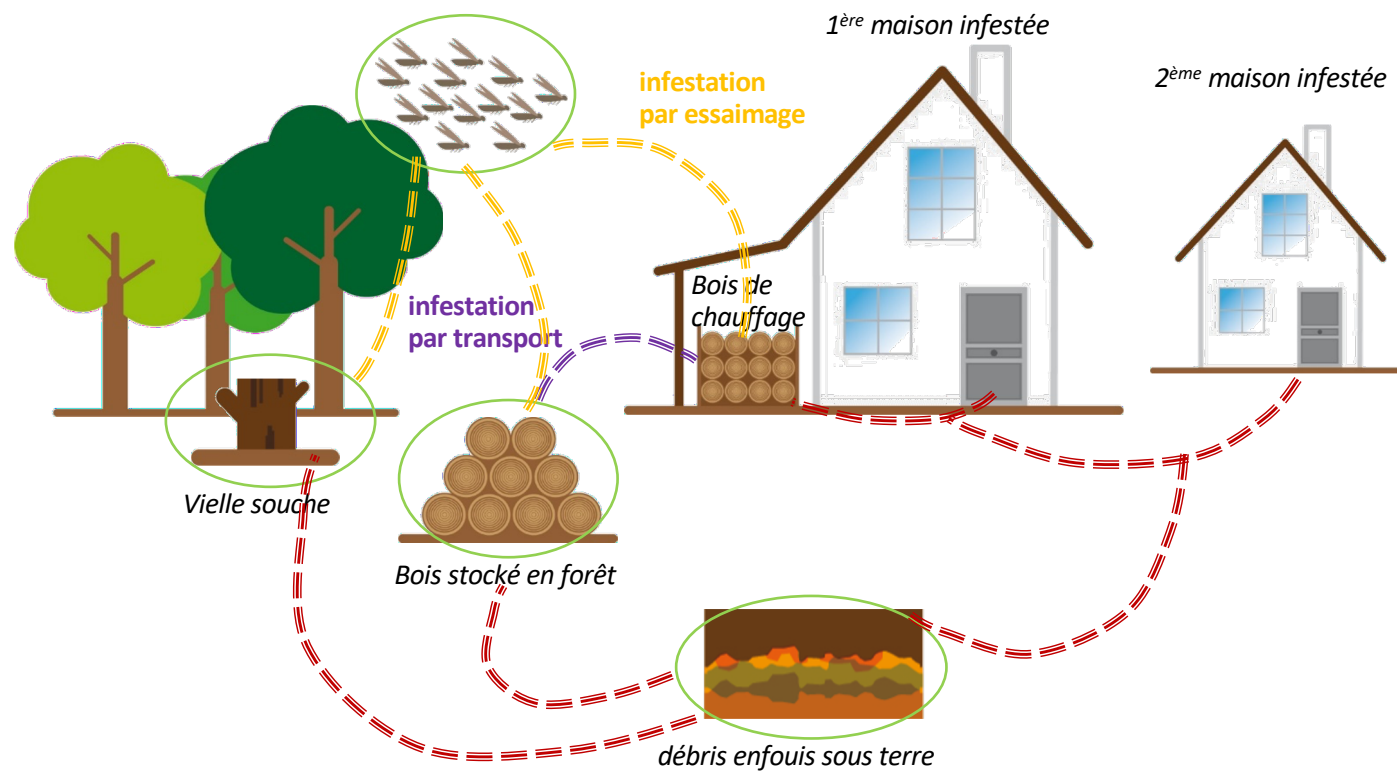
A close-up photograph of a grey concrete surface. A prominent, thick, reddish-brown line of rust deposits runs diagonally from the top left towards the bottom center. To the right of this line, there are several smaller, irregular patches of similar rust staining. The concrete surface has a rough, granular texture. The text "= Infestations" is overlaid in white in the lower-middle part of the image.

= Infestations



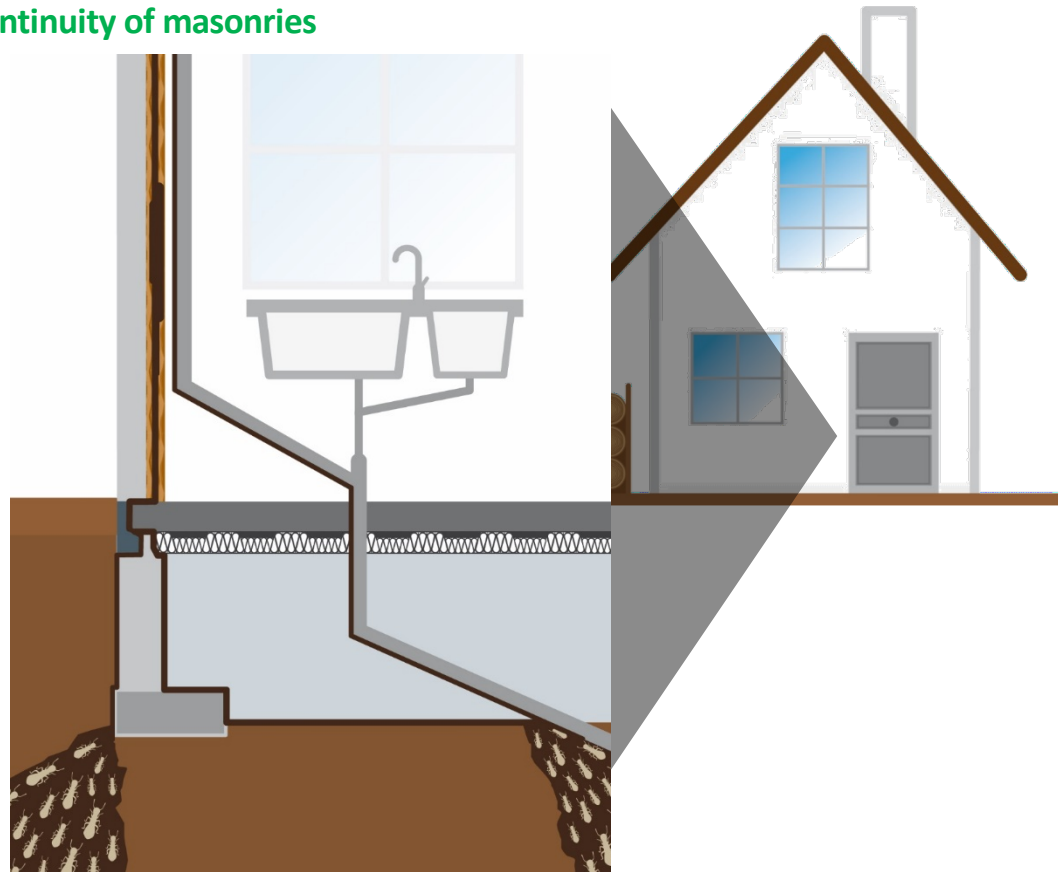
The Risk

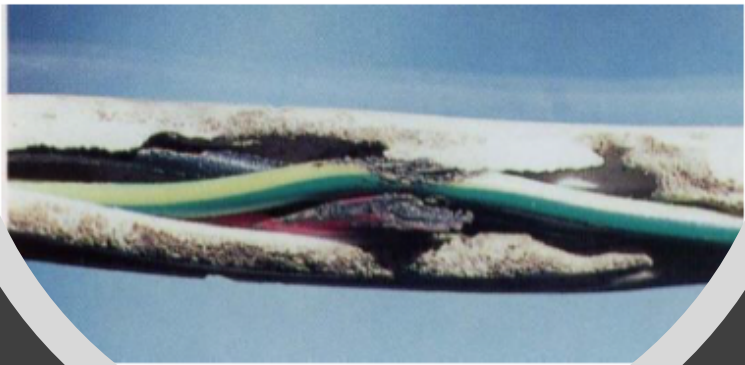
Points d'entrée dans le bâti



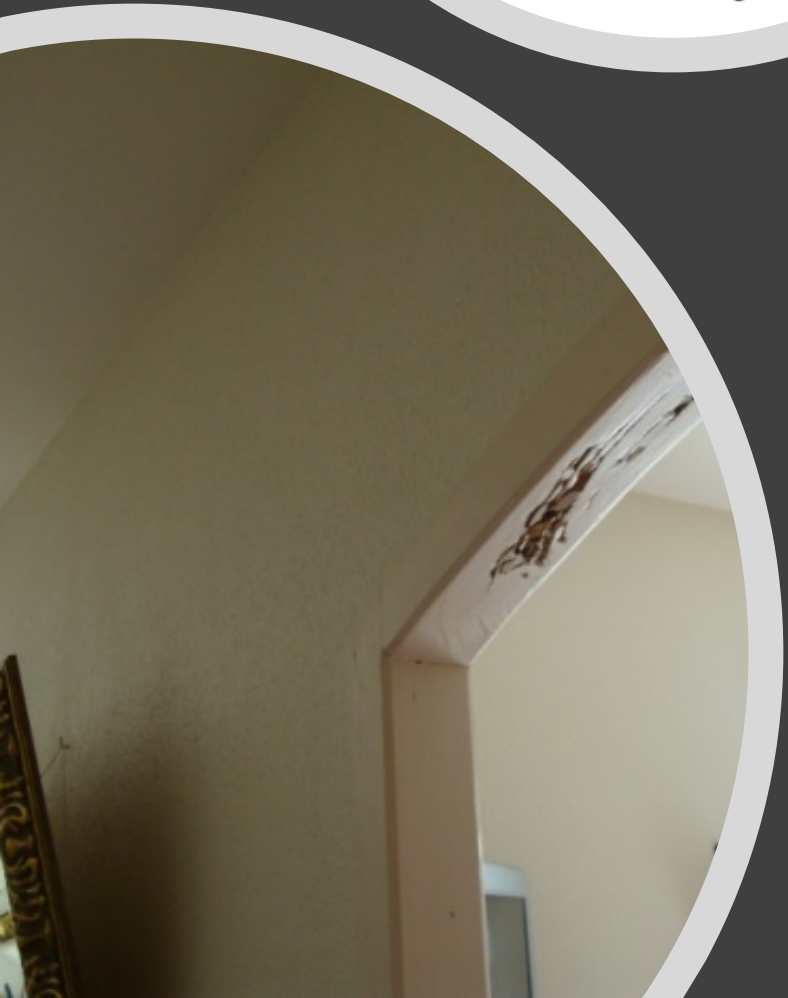
How they get in the building

Entry points underground =
Discontinuity of masonries





Énudement d'une gaine élec



Traces of Attack





...ion d'un plafond



...quet flottant



Evidement d'un poteau de sout

Damages

Results



Structural Damage due infestation



Financial losses to property owner



Toxic to the Local Environment (2X application)



Reputation & Integrity

Advanced Solutions by Berkem

Harmless to the environment, due to attached biocide process making it unescapable into the soil to pollute water.

Compatible to all construction types

Adapts to seismic and non-seismic areas.

Minimum 10-year guarantee with more than 20 years in field trials with no proven loss of efficacy

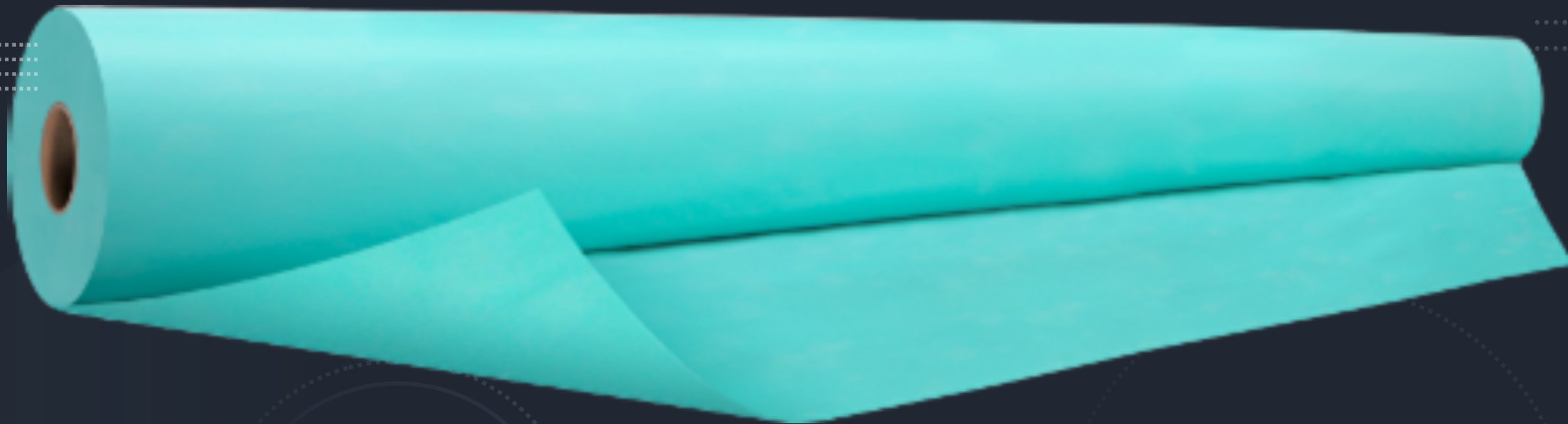
The Solution



A construction site showing a concrete slab preparation. A grid of steel reinforcement bars (rebar) is laid out on a green anti-termite film. A worker in a dark jacket and blue pants is visible in the background, working on the rebar. The site is surrounded by large mounds of earth and construction equipment.

An Innovative Anti- Termite Film Barrie

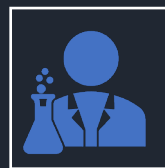
For All Types of Construction



Product Highlights



Pre-construction Termite preventive film, positioned between the ground and the frame, cover all slab from bottom to edges.



Encapsulated actives that does not pollute the soil thanks to its patented process which consists of grafting active molecules into the polyane making Termifilm a physicochemical solution



Classified as non-toxic, and not harmful to the environment and or to humans



Double action against Termites & Humidity

Application & process video

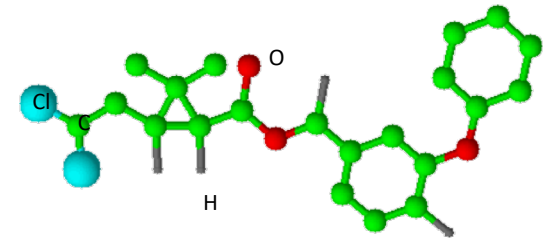
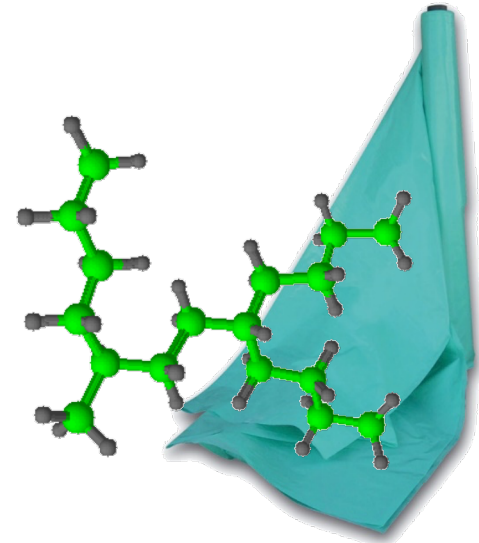


Sarpap & Cecil Industrie – Groupe BERKEM - Le Marais Ouest -24680 Gardonne - Tél : +33 (0)5 53 63 81 00 - Fax : +33 (0)5 53 63 81 01



The Process

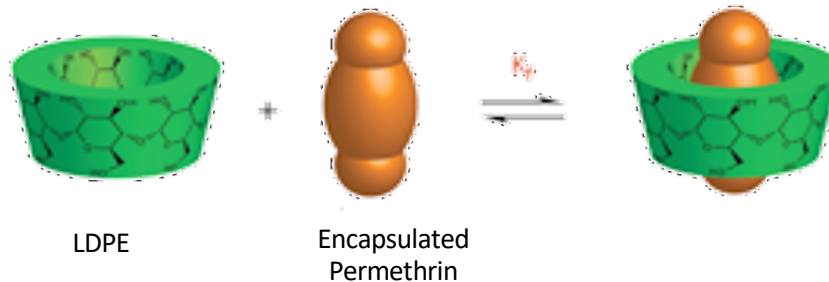
- 1st Compound: Low Density Polyethylene Polymer Support for good flexibility and resistance against chemical aggressions
- 2nd Compound: Molecule Insecticidal (Permethrin graft in the LDPE) to attack the nervous system by contact and ingestion



Gencod :

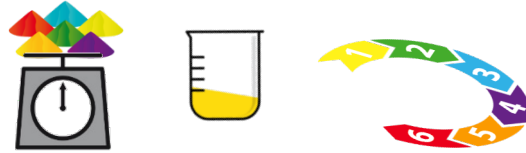
- Rolls 150m² :
- 36 rolls per pallet

3 360 730 005 766



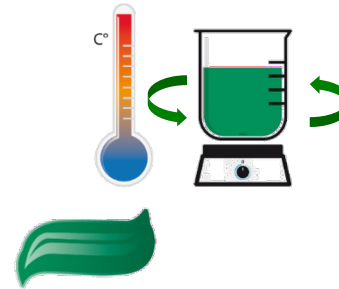
An innovative process

1/ Weight of different compounds : polymers + active substances + formulation's additives



2/ Add in a specific order

3/ Mix with a high and monitored speed and temperature.
Manage the absorption of the permethrin in the polyethylene



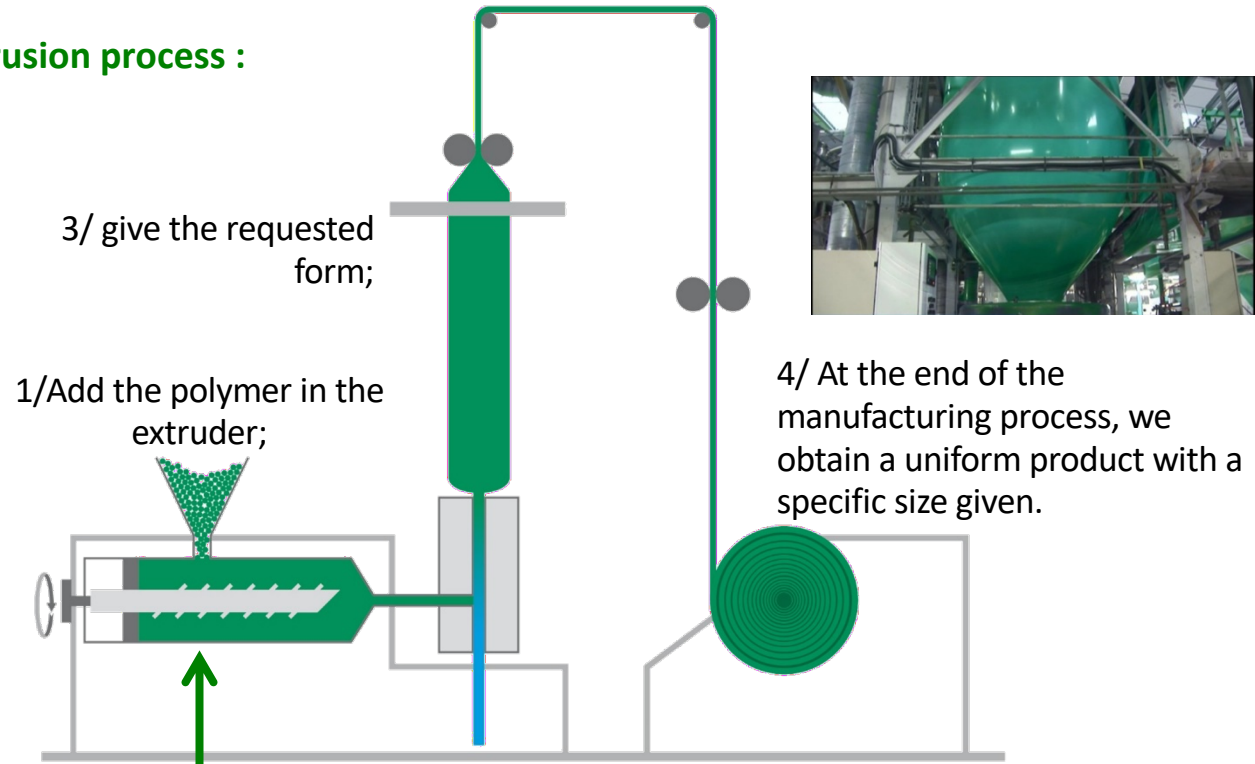
4/ Cooling : obtention of a melted compact mass

5/ Pass through a holed plate and cut into cylindrical pills (4mm diameter and 2mm thick)



An innovative process

Extrusion process :



3/ give the requested form;

1/Add the polymer in the extruder;

4/ At the end of the manufacturing process, we obtain a uniform product with a specific size given.

2/ Extrusion = Melt the polymer, put under pressure and give a continuous flow of the mass at a constant temperature;



- **Technical data**

- Permeance : $< 3,5\text{g/m}^2$ in 24h
- Impact resistance : ≥ 350 grammes
- Anti-termite efficacy: 100 % death rate in 24H

	Modulus of elasticity	Elongation at rupture	Rupture Stress	Tear Resistance
Longitudinal	≥ 120 MPa	> 350 %	> 15 MPa	> 300 cN
Transversal		> 450 %	> 15 MPa	> 300 cN



Anti-termite polyethylene film
Adaptable to all types of constructions:
wooden and concrete,
individual houses, industrial, collective
buildings

- **Versatile :**
Double action against termite and humidity
- **Very low impact on the environment**
- **The biocide is not leashed because of soil's chemical aggression or humidity rising (biocide graft to the polymer)**
- **Easiest and safest way to prevent subterranean termites infestation**
- **27 years of successfull test through a french laboratory (FCBA)**
- **Efficiency tested & approuved in all the most infested areas wolrdwide**



EXISTING PROCESS TO PREVENT TERMITES INFESTATIONS

Spreading Process

PROCESS:

- Pulverization of a liquid product in the soil before slab installation
- Individual protection equipment very important
- Fixation agents

LIMITS

- Environmental issue
- Long term contamination
- Process forbidden in Europe today
- Lack of long term efficiency
- Leash of the biocide
- Aquatic environment damages
- Hard to be sure about the product that is spreading (it can be water!!)

Physico chemical barrier



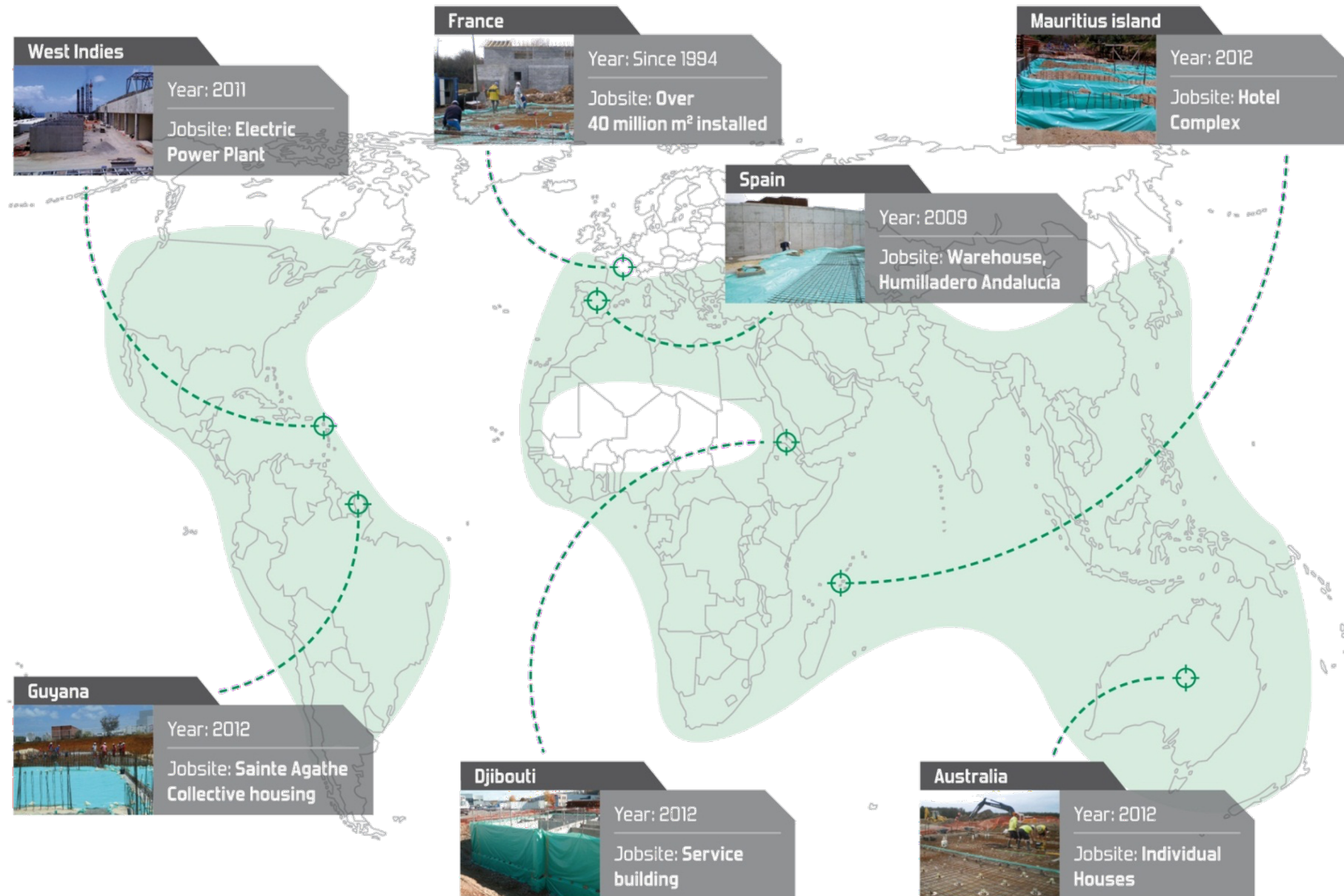
PROCESS:

- Spread the physico chemical barrier on all the surface of the building, under the slab
- Gloves and safety norms to follow
- Replace the Polyane usually installed for humidity rising
- Eco – friendly
- No need to come back on the field for monitoring

LIMITS

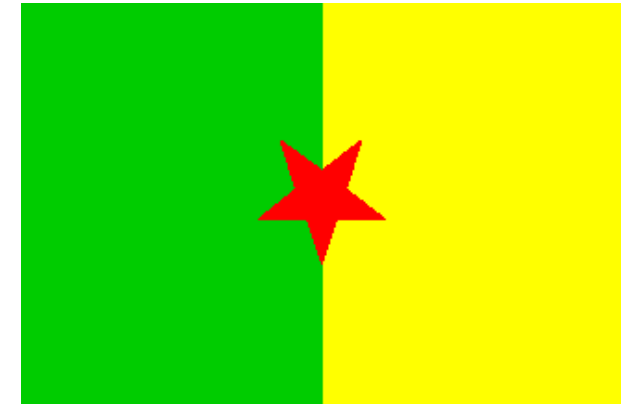
- The PCO must be sure that the slab is installed quickly after applying the Termifilm.
- UV resistance

Over 50 Million m² installed worldwide



Tested & Approved Around the world

- South Africa Bureau of Standards, 1997, 42 months
- USA dept of Agriculture, 1998, 8 years
- Fresh Guyana CIRAD, 1998, 8 yrs
- Australia, CSIRO, 1995, 5 years
- Thailand Royal Forestry Dept, 2011, 5 years
- France FCBA, 1994: 25 years



Chemical Spray VS. TERMIFILM

- Traditional Chemical
 1. Contaminates UAE water reservoirs
 2. High chance of wrongful treatments
 3. Treatment guarantees are not warranted
 4. Degradable overtime by Heat and Humidity



- Termifilm
 1. Does't Contaminate Water reservoirs of the UAE
 2. Physical and Chemical barriers are 100% effective
 3. Guaranteed for 10 years by manufacturer
 4. Does not lose efficacy for more than 20 years
 5. professional





Benefits

- Adopt latest in technology innovative ideas
- Long Lasting & Cost Effective in the long long run for all stakeholders
- Doesn't Contaminate Water reservoirs of the UAE
- Safe on the environment and human
- Easy & safe to apply with guaranteed results
- Revenue stream for for the municipality

Thank you