



# EMPRESA



- **Des de 1962.**
- **Empresa familiar.**
- **Producte: Embalatge flexible.**
- **Dos centres de producció:**
  - **Torroella de Montgrí i Sariñena.**
- **240 treballadors**
- **Exportació: 33%**



## **PROCESSOS PRINCIPALS**

- **Impressió en Rotogravat.**
- **Laminació amb i sense dissolvents.**
- **Tall i rebobinat.**



## PROCESSOS AUXILIARS

- Estrussió LDPE tricapa.
- Pre-impresió.
- Gravació de cilindres.
- Cold Seal a registre.
- Reimpresió fins a 3 colors.
- Macro i micropreforat mecànic i làser.
- Bosses confeccionades.



# CERTIFICATS





**FILMS FOR  
STAND UP  
POUCHES**

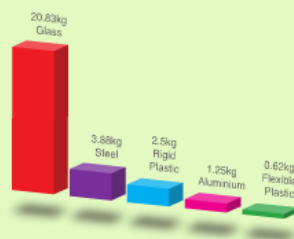
# FACTS

## Packaging Volume Reduction (PVR)

Consumer acceptance of flexible plastic Stand Up Pouches as an alternative to rigid containers, such as tins, glass and plastic bottles will buoy demand, as will such advantages as superior aesthetic appeal, portability, light weight, reduced material use and significantly lower shipping costs than rigid containers.

- SUPs consume much less space at home and in landfill
- A flexible package uses 75% less energy than Aluminium
- Flexible packaging uses far less energy to transport. 25 lorry loads of unfilled glass jars = 1 lorry load of SUPs (DuPont Packaging Awards for Innovation).

To Pack 25kg of Beverage Requires...



## Measures

	100 oz Product Volume: 168 LITERS Retail Space: 278 LITERS	50 oz Product Volume: 84 LITERS Retail Space: 125 LITERS	16.7oz x3 Product Volume: 84 LITERS Retail Space: 16 LITERS
<b>PALETTE</b> (OR 25kg SUPS PALLET) (OR 1.5kg BOTTLE PALLET)	Product Volume: 23.3 LITERS Retail Space: 48.7 LITERS Retail Weight: *1917**	Product Volume: 21.0 LITERS Retail Space: 44.7 LITERS Retail Weight: *3451**	Product Volume: 56.0 LITERS Retail Space: 10.7 LITERS Retail Weight: *9204**
<b>TRUCKLOAD</b> (OR PALLET)	Product Volume: 653 LITERS Retail Space: 1,364 LITERS Retail Weight: *53,692**	Product Volume: 588 LITERS Retail Space: 1,252 LITERS Retail Weight: *96,647**	Product Volume: 1,568 LITERS Retail Space: 300 LITERS Retail Weight: *257,725**
<b>LANDFILL</b> (OR 25kg SUPS PALLET) (OR 1.5kg BOTTLE PALLET)	Product Volume: 257,725 LITERS Retail Space: 4.80 LITERS Retail Weight: 1,278 LITERS	Product Volume: 257,725 LITERS Retail Space: 2.87 LITERS Retail Weight: 664 LITERS	Product Volume: 257,725 LITERS Retail Space: 3 LITERS Retail Weight: 23 LITERS
<b>ENVIRONMENTAL POLLUTION COST RATIO</b>	55X	28X	1X

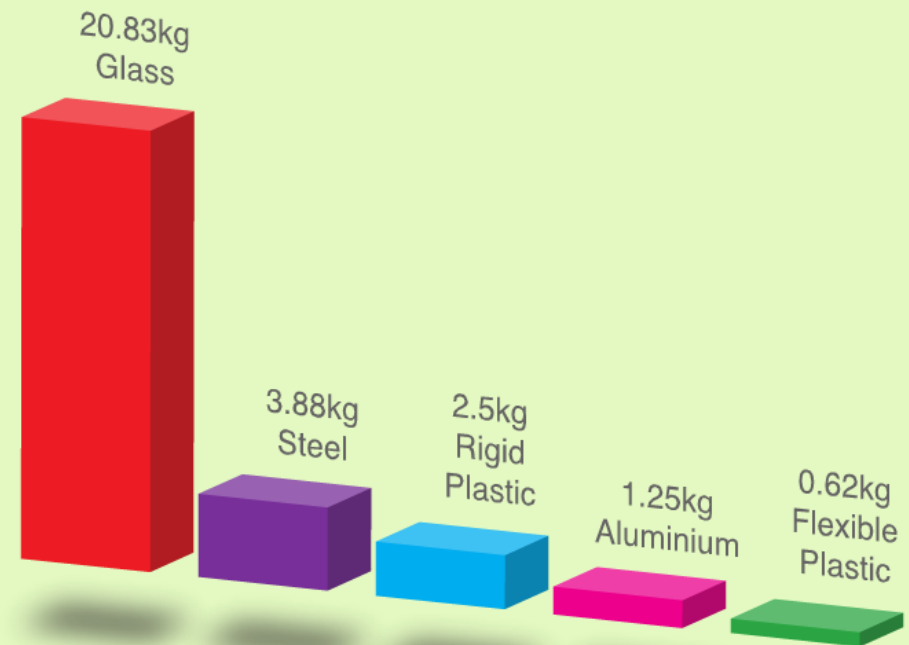


## Packaging Volume Reduction (PVR)

Consumer acceptance of flexible plastic Stand Up Pouches as an alternative to rigid containers, such as tins, glass and plastic bottles will buoy demand, as will such advantages as superior aesthetic appeal, portability, light weight, reduced material use and significantly lower shipping costs than rigid containers.

- SUPs consume much less space at home and in landfill
- A flexible package uses 75% less energy than Aluminium
- Flexible packaging uses far less energy to transport. 25 lorry loads of unfilled glass jars = 1 lorry load of SUPs (DuPont Packaging Awards for Innovation).

### To Pack 25kg of Beverage Requires...



# Measures

## 100 oz

Product Volume: **168** <sup>cubic</sup> inches  
 Dead Space: **278** <sup>cubic</sup> inches



\$7.99

**1X**

Product Volume:  
**23.3** <sup>cubic</sup> feet

Dead Space:  
**48.7** <sup>cubic</sup> feet

Retail Value:  
**\$1917**<sup>60</sup>

## 50 oz

Product Volume: **84** <sup>cubic</sup> inches  
 Dead Space: **125** <sup>cubic</sup> inches



\$7.99

**2X** CONCENTRATED

Product Volume:  
**21.0** <sup>cubic</sup> feet

Dead Space:  
**44.7** <sup>cubic</sup> feet

Retail Value:  
**\$3451**<sup>68</sup>

## 16.7 oz x3

Product Volume: **84** <sup>cubic</sup> inches  
 Dead Space: **16** <sup>cubic</sup> inches



\$7.99

**2X** PLUS

Product Volume:  
**56.0** <sup>cubic</sup> feet

Dead Space:  
**10.7** <sup>cubic</sup> feet

Retail Value:  
**\$9204**<sup>48</sup>



**PALLET**  
 (1X = 240 BOTTLES/PALLET)  
 (2X = 432 BOTTLES/PALLET)  
 (2X+ = 1,152 BOXES/PALLET)



**TRUCKLOAD**  
 (28 PALLETS)

Product Volume:  
**653** <sup>cubic</sup> feet

Dead Space:  
**1,364** <sup>cubic</sup> feet

Retail Value:  
**\$53,692**<sup>80</sup>

Product Volume:  
**588** <sup>cubic</sup> feet

Dead Space:  
**1,252** <sup>cubic</sup> feet

Retail Value:  
**\$96,647**<sup>04</sup>

Product Volume:  
**1,568** <sup>cubic</sup> feet

Dead Space:  
**300** <sup>cubic</sup> feet

Retail Value:  
**\$257,725**<sup>40</sup>



**LANDFILL**  
 (CRUSHED TRUCKLOAD VOLUME  
 AT EQUAL RETAIL VALUE)

Equal Retail Value:  
**\$257,725**<sup>40</sup>

Truckloads:  
**4.80**

Crushed Volume:  
**1,278** <sup>cubic</sup> feet

Equal Retail Value:  
**\$257,725**<sup>40</sup>

Truckloads:  
**2.67**

Crushed Volume:  
**664** <sup>cubic</sup> feet

Equal Retail Value:  
**\$257,725**<sup>40</sup>

Truckloads:  
**1**

Crushed Volume:  
**23** <sup>cubic</sup> feet

**ENVIRONMENTAL  
 POLLUTION  
 COST RATIO**

**55X**

**28X**

**1X**



**FILMS FOR  
STAND UP  
POUCHES**

**FILMS FOR  
STAND UP  
POUCHES**



**Criteria**



**Conditions**



**Materials**



# Criteria



# Styles of STAND UP pouches



# What we need to pack



**Do you want to see your product?**



# Weight, heavy or light?



# What features do you want?

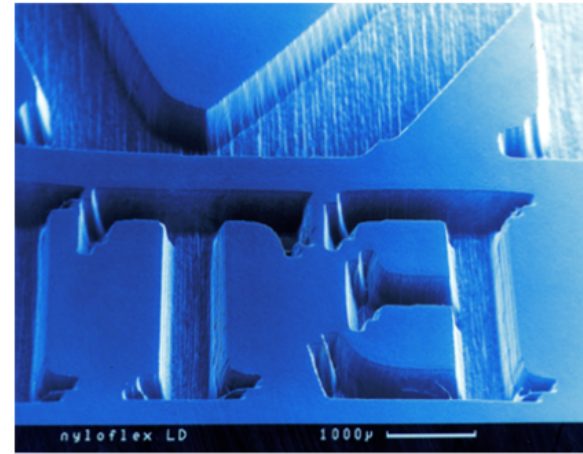
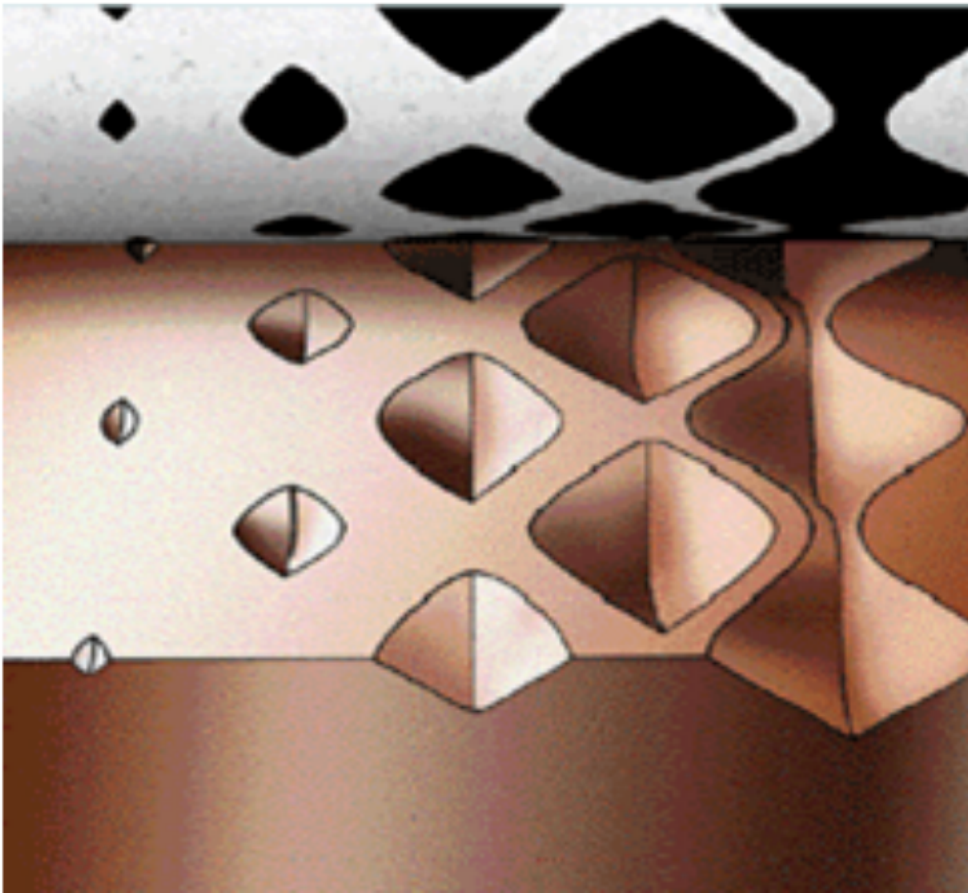
Tear notch?  
Reclose Zip lock?  
Euro hole?  
Liquid pour spout?  
Hang hole?  
etc...





# Printing system

- Gravure
- Flexographic
- Other.....





A large, thick red checkmark is centered within a black square frame. The frame is slightly tilted and has a soft, blurred appearance. The background is white.

**Quantity...**





**+ Criteria  
&  
Check !!**



**Conditions**

# What kind of conditions will the pouch be subjected to?

- Chemical resistance?
- Pasteurization/Retort/Microwaveable
- Drop resistance?
- Do you want your product fresh for ..... days?
- Frozen, chilled?
- Others....





**Materials**

# Functional barrieres



LDPE; CPP; OPP; PET; OPPM; PETM; ALU FOIL



PA; OPA; PVOH; PVDC; OPPM; PETM; EVOH; ALOX; SIOX; ALU



Opaque&colored films - Metalized films - Alu Foil



# Materials-Structures

Transparent



White



Metalized



Alu-foil





# TRANSPARENTS CLEAR / WHITE

## NOT BARRIER



## MEDIUM BARRIER



## HIGH BARRIER



# METALIZED/ ALU FOIL



PET MET (SILVER/GOLD)  
LDPE



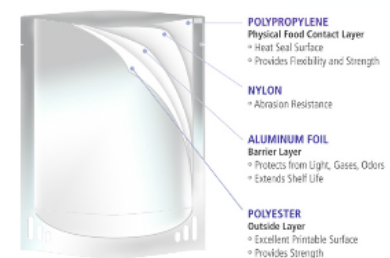
PET  
ALU FOIL  
LDPE



OPP  
ALU FOIL  
LDPE



PA/OPA  
ALU FOIL  
LDPE







**POLYPROPYLENE**

**Physical Food Contact Layer**

- Heat Seal Surface
- Provides Flexibility and Strength

**NYLON**

- Abrasion Resistance

**ALUMINUM FOIL**

**Barrier Layer**

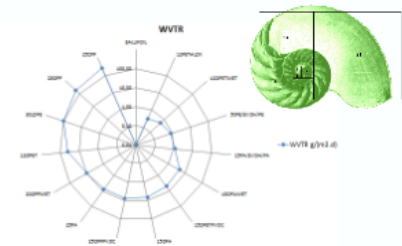
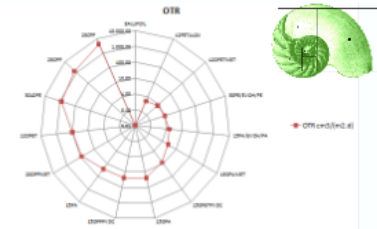
- Protects from Light, Gases, Odors
- Extends Shelf Life

**POLYESTER**

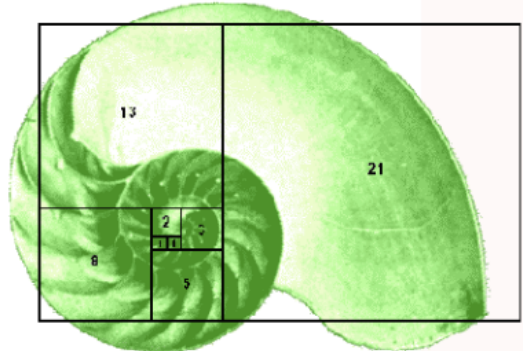
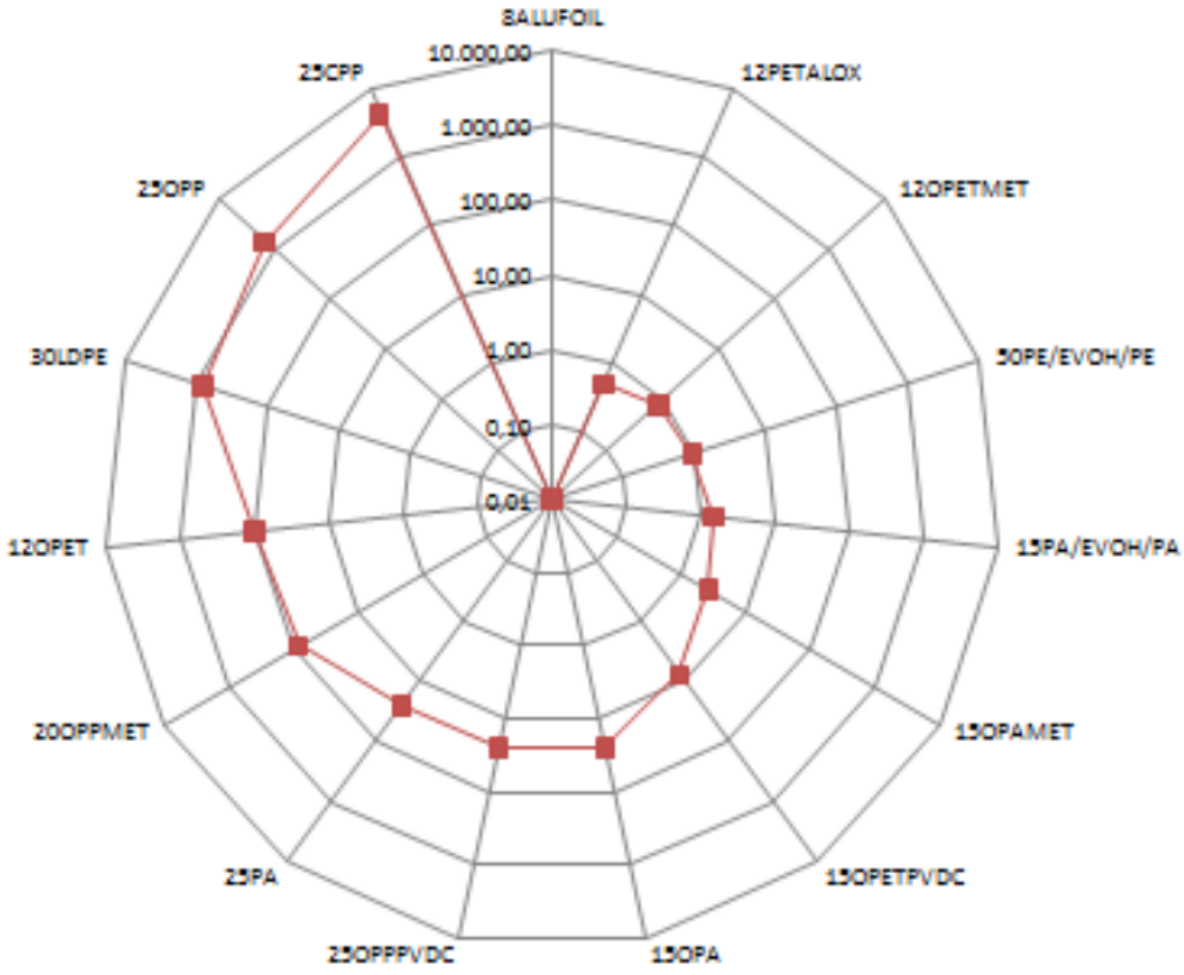
**Outside Layer**

- Excellent Printable Surface
- Provides Strength

Film	WVTR g/(m <sup>2</sup> .d)	OTR cm <sup>3</sup> /(m <sup>2</sup> .d)
8ALUFOIL	0,01	0,01
12PETALOX	0,30	0,50
12OPETMET	0,80	0,80
50PE/EVOH/PE	8,00	0,95
15PA/EVOH/PA	100,00	1,50
15OPAMET	1,10	2,60
15OPETPVDC	8,00	8,00
15OPA	250,00	25,00
25OPPPVDC	4,20	25,00
25PA	180,00	25,00
20OPPMET	0,50	80,00
12OPET	40,00	100,00
30LDPE	7,00	800,00
25OPP	5,00	1.400,00
25CPP	10,00	4.500,00

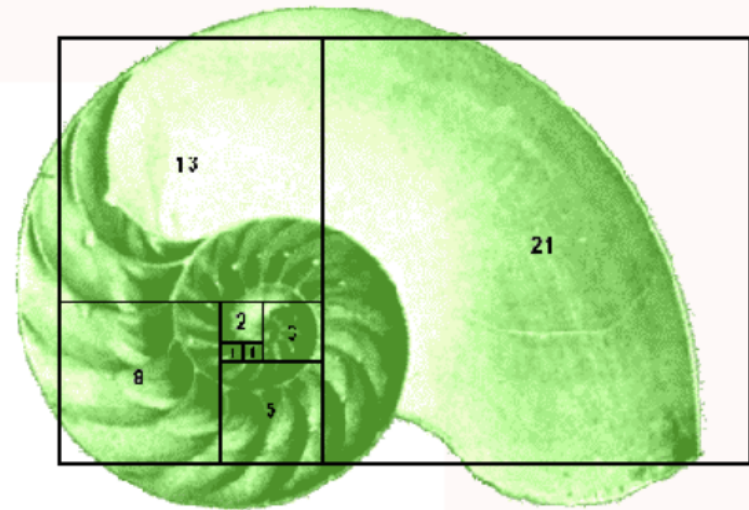
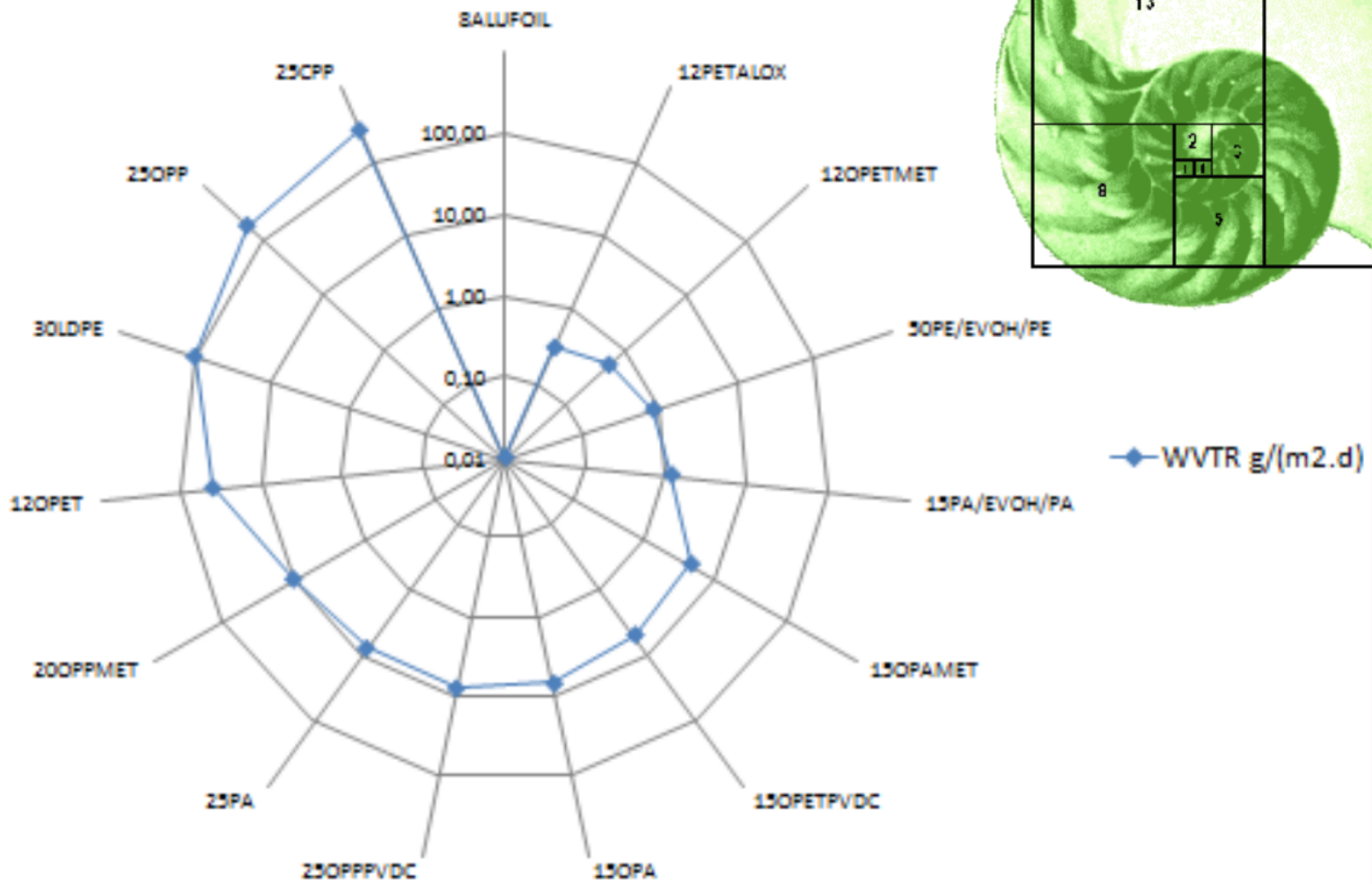


# OTR



■ OTR cm³/(m².d)

# WVTR



# Pasteurization Retort Microwaves



LDPE → CPP

Special adhesive

# BIOFILMS



**Certified EN13432  
OK Compost Vincotte**

- **"Flexibles":**

**Innovia: NatureFlex: Cel·lulosa regenerada (RCF)**

**Taghleef: Nativia: Àcid polilàctic (PLA)**

**Clarifoil : Acetat de cel·lulosa (CA)**

...

- **"+soft":**

**Novamont: Mater Bi : midó termoplàstic (TPS)**

**Limagrain: Biolice: (TPS)**

**Biostarch (TPS)**

**Wentus wenterra: Mater Bi**

**Basf Ecoflex: Copolyester: (CoPET)**

**Biobag: Mater Bi**

...

**FILMS FOR  
STAND UP  
POUCHES**



**Criteria**



**Conditions**



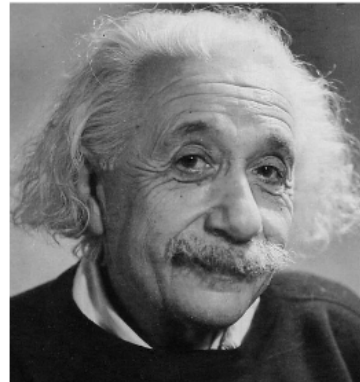
**Materials**

**and .... how much does it cost?**



€ = material x criteria x conditions x check x check =

$$\text{€} = m c^4$$



$$E = mc^4$$



To be continued...





# Moltes gràcies!

**Pere Coll i Torrent**

Director I+D

Enplater, S.A.

2013

