Vinyl flooring for Building & Construction

Dr Olivier CEYSSON

R&D and Innovation Director – GERFLOR Group







GERFLOR AT ONE GLANCE







OUR HERITAGE



A group built on innovative brands and companies



Connor Sports
The first wood sports
flooring since 1872



MipolamThe first homogeneous flooring since 1937



TaraflexSupplier to the Olympic games since 1976





















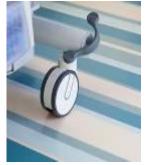
Batiflex
The first flooring solution dedicated to aircraft since 1948



THE FLOORING MULTI-SPECIALIST



Specific Solutions for every market need







Retail



Housing



Residential



Industry





Sport



Education >



Hospitality >



Offices



Transport >



COMPLETE SOLUTIONS



Various flooring technologies





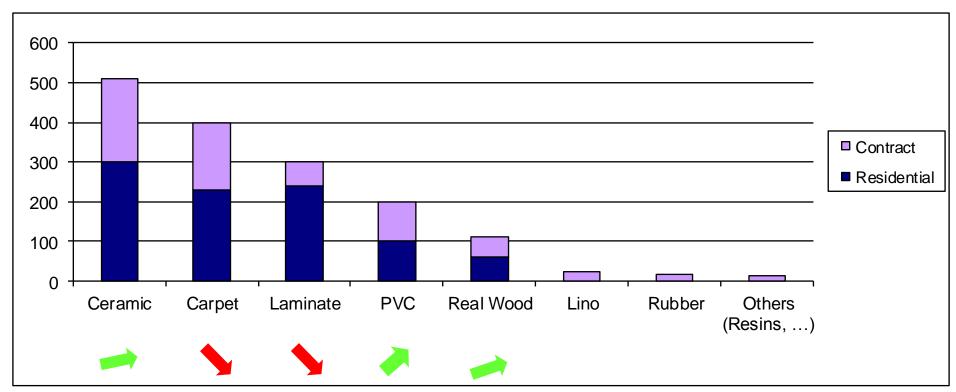
Western Europe Flooring Market



In Volume (M sqm)

Product Category Split

Residential / Contract Split



Vinyl Flooring is the most booming product category
-> Modular Products (LVT)



PVC FLOORING: Products & Processes

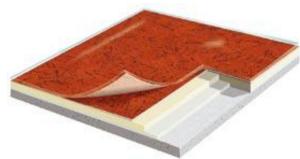


LVT

HETEROGENEOUS

HOMOGENEOUS







- Compounding + Calandering
- Printing
- Laminating
- Varnishing
- Cutting / Profiling

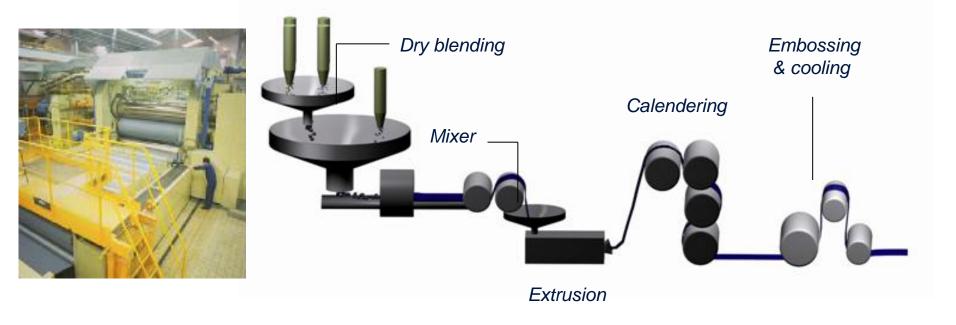
- Coating
- Printing
- Varnishing

- Compounding + Calandering
- Extrusion / Pressing
- Varnishing



CALENDERING



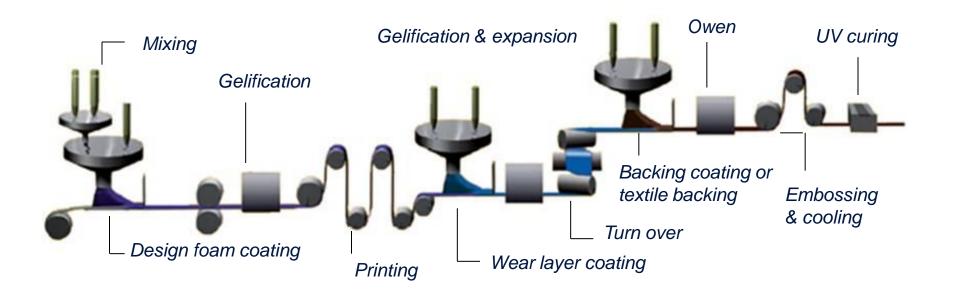


 Transformation of the thermoplastic PVC formulation into layers of regular thicknesses



COATING



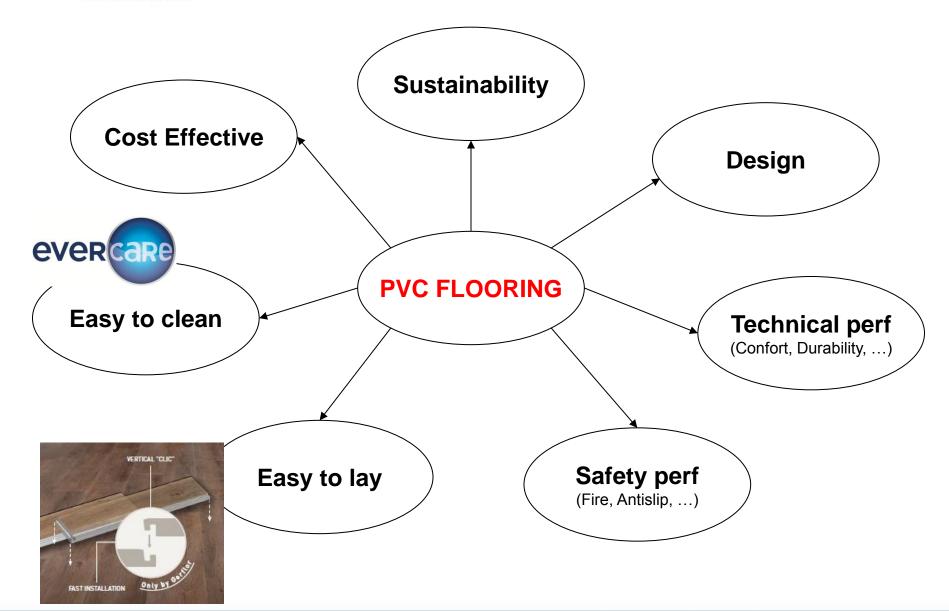


• Transformation of a plastisol paste into a compact or foam layer by heating at high temperature in an oven



PVC FLOORING BENEFITS

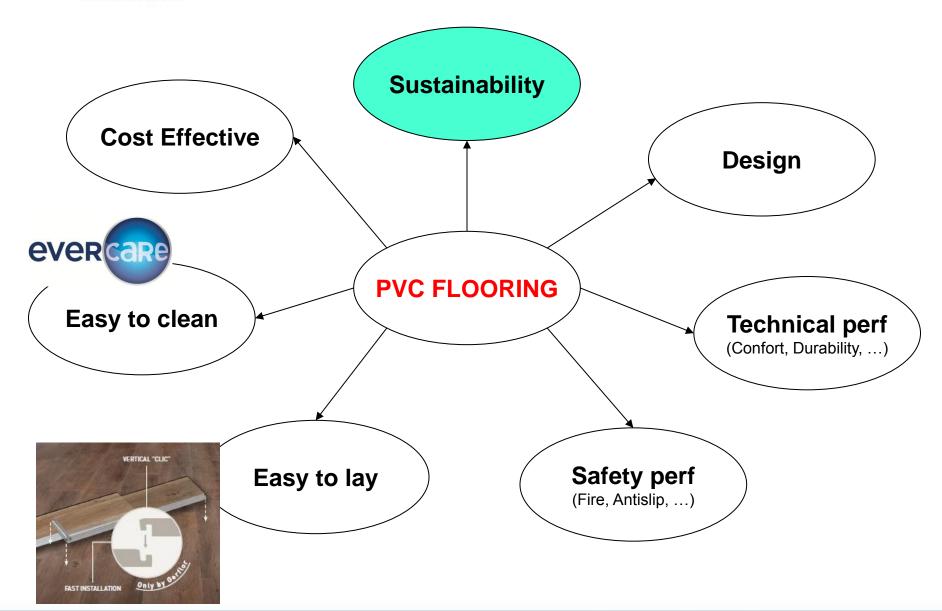






PVC FLOORING BENEFITS









Main improuvements for PVC FLOORING

► 1 – Raw Materials



▶ 2 - VOC



▶ 3 - LCA



▶ 4 – Recycling







1 - Raw materials & Formulation

- No Heavy metals
- No solvant
- No formaldehyde
- No CMR 1-2 products





PLASTIFIANT 100% ORIGINE VÉGÉTALE

MIPOLAM SYMBIOZ

75% de matières premières durables ou renouvelables.





MATIÈRES PREMIÈRES RAPIDEMENT RENOUVELABLES

2. SAGA² / SOLILIEGE

Dalle acoustique avec envers liège.





HOMOGENEOUS with bio based plasticiser



MIPOLAM SYMBIOZ TM









75% sustainable/renewable materials (salt, mineral filler, 100% bio-based plasticiser)





2 – Indoor Air Quality

TVOC value (µgr/m3)



< 1 000 at 28 days



< 1 000 at 28 days



TP 2: < 250 At 28 days



< 200 At 28 days

- No formaldehyde emission
- Very low VOC emission







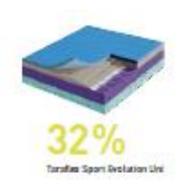


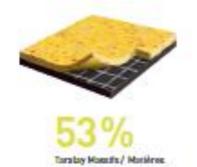


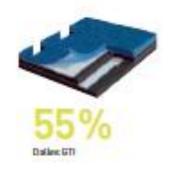
3 – Recycling content

- Post industrial and post installation recycling materials
- Average recycling content > 25%















4- Second Life Program

- Collection of installation waste
- Traitment managed by GERFLOR
- Re-introduction in vinyl flooring (back layers)





APPROCHE ÉCONOMIQUE

Gerflor se charge de la livraison des contenants, de la formation du personnel, de la récupération des contenants pleins, de l'ensemble des actions de valorisation (tri, broyage,

retormulation...).

L' entreprise de pose trie ses déchets et ne paye pas la mise en Centre d'Enfouissement Technique (l'enfouissement coute environ 100€ la fonne).

Gerllor demande une contribution inférieure au coût de

L'opération est mise en place après signature d'une convention entre Gerflor et l'entreprise de pose.

Répartition des coûts :

devront être collectés séparèment: (le recyclage suit des filières différentes). 1. Chutes de revêtements Gerflor PVC

 Taralay Initial, Impression, Matières, Massifs, Nera, Mipolam
 Taradal, Transit, Transidal

GTI, Attraction, Création, Création Clic System
Taradouche, Mural Ultra et Mural Douche
Produits Sport hors Dry Tex

Autres chutes de revêtements Gerfler PVC

avec envers PVC

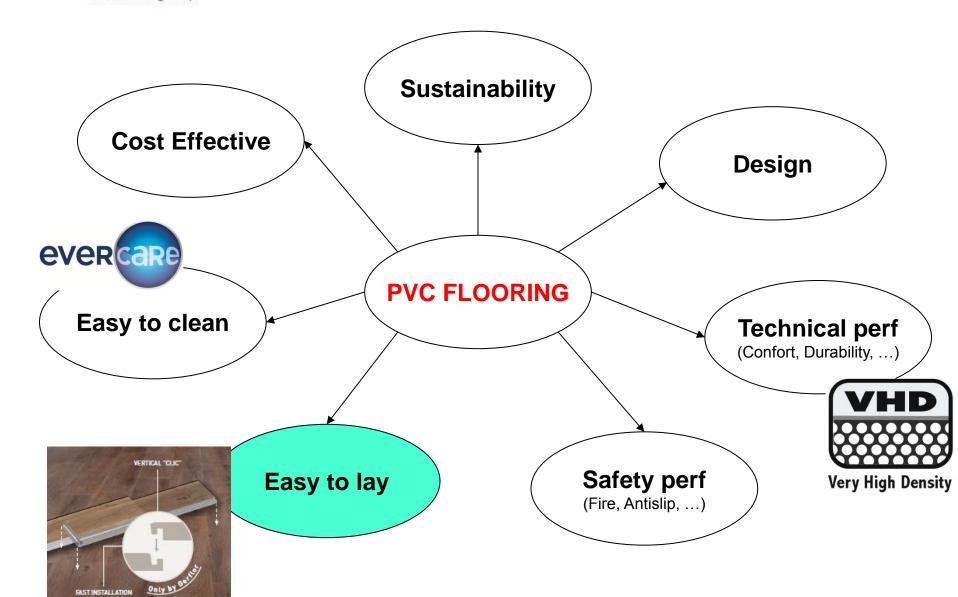
· Avec textile, envers liège

 Anti dérapants avec particules de cristaux minéraux.
 produits de finition : plinthes, profils de finition, SPM
 Produits Sport Dry Tex



PVC FLOORING BENEFITS







MODULAR FLOORING BENEFITS



LVT Product benefits

MAKES LIFE **EASIER**

- Easy to **transport** > modular format
- Easy to **install** > adhesive-interlocking-looselay
- Easy to **cut** > utility knife
- Easy to **clean** > soapy water

ALL **USES**

- Water resistant
- Renovation > Installation on different type of surface & thinner product than wood
- **3 levels of traffic** > from low to high





Gerflor COMPLETE offer

3 LEVEL OF **TRAFFIC** 0,3 > medium traffic 0,55 > high traffic 0,7 > very high traffic

4 INSTALLATION TECHNOLOGIES

- INTERLOCKING
- SELF-ADHESIVE
 - LOOSELAY
 - DRY BACK



COMPLETE INSTALLATION SOLUTIONS



CREATION CLIC SYSTEM







CREATION X'PRESS







CREATION





CREATION 70 CLIC SYSTEM





0568 FARCO O

0531 HALIFAX

0394 WESH SIATE

0337 VICTORIA CAK

0359W LD CAK .

CREATION 70 X'PRESS









*Woolable quarter 2 of 2015 Disposible 2*trimestre 2015 Verligibor 2, Quartal 2015

EXCLUSIVE LOOSELAY CONSTRUCTION PRESSURE SENSITIVE ADHESIVE DESIGNED FOR HIGH TRAFFIC* REM OVABLE

CONCEPTION PLOMBANTE EXCLUSIVE ADHÉSIF REPOSITIONNABLE SANS TRANSFERT CONCU POUR LE FORT TRAFIC*

EXKLUSIVES SELBSTLIEGENDES VERLEGESYSTEM INKLUSIVE DRUCKAKTIVIERTEM KLEBSTOFF FÜR STARKE BEANSPRUCHUNG* WIEDERAUFNEHMBAR

































0265 WALNUT O

0260 CLASSIC CAK O











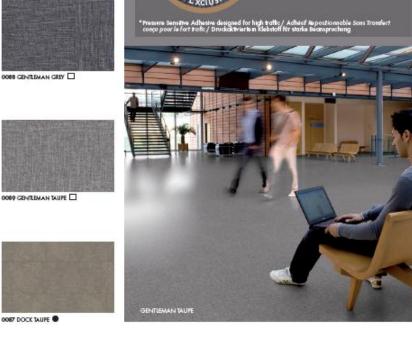












DOUBLE FIBER GRID

DOUBLE GRILLE DE VERRE DOPPELTES GLASFASERGITTER

EXTREME DURABILITY

INTEGRATED TACKIFIER POISSANT INTÉGRÉ INTEGRIERTE KLEBESCHICHT

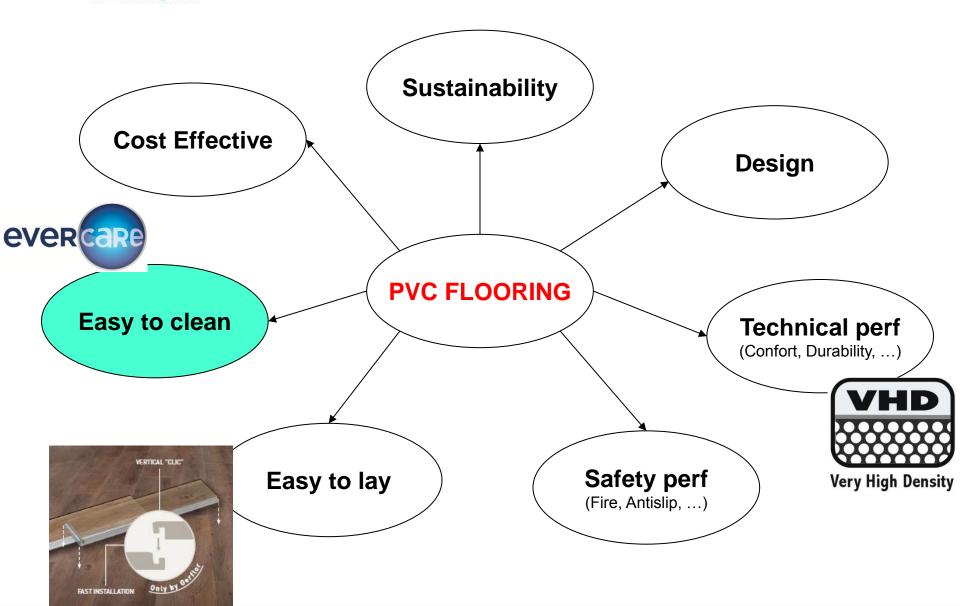
ULTRA RÉSISTANT

ULTRA RESISTENT



PVC FLOORING BENEFITS







MIPOLAM SYMBIOZ



theflooringroup

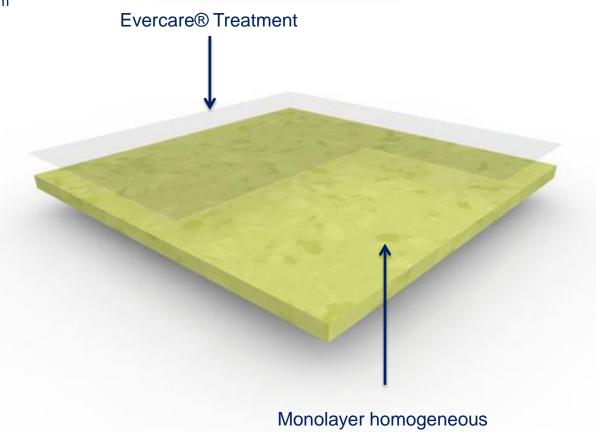


Wide of sheet: 200 cm

Lenght of sheet: 20 lm

Product Construction





flooring, calendered



MIPOLAM SYMBIOZ



theflooringroup

Main product benefits

- Unique and realistic designs:
- Matt finishing
- Large palette of colours
- Abrasion group T
- Antistatic
- Residual indentation (0,02mm)
- Evercare TM surface treatment:
- Obtained by UV laser cross-linking
- Ease of maintenance: no wax for life
- Avoids staining and soiling
- 30% savings on maintenance cost
- 15% less detergent and water use
- Indoor air quality: TVOC < 10 & 100% recyclable product
- made from 100% bio-based plasticizer
- contains over 75% sustainable or renewable raw materials



Aestheticism and decorative range



Durability and performance



Easy maintenance





Eco-responsible



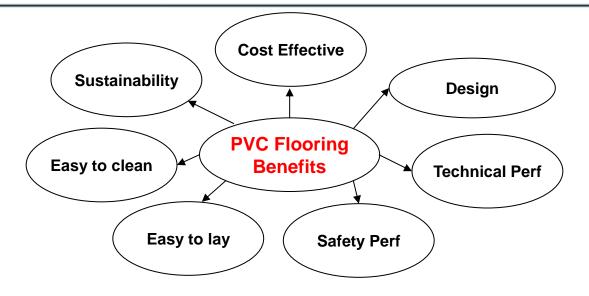






CONCLUSION





Sustainability

Raw materials
VOC and Indoor Air Quality
LCA
Recycling

Easy to Lay

Adhesive / Looselay / Interlocking Products -> Ideal for Renovation



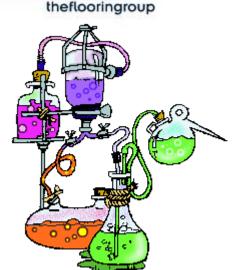
Easy to Clean

Avoids staining and soiling Saving on maintenance cost



THANKS







$$n\begin{bmatrix} H & CI \\ H & H \end{bmatrix} \longrightarrow \begin{pmatrix} H & CI \\ + & H \end{pmatrix}$$

2013 = 100th anniversary for 1^{er} PVC patent

....and many more Innovations to come for PVC Flooring