



POLYMER ADDITIVES ACADEMY

by GreenChemicals

25, May 2023 - 06, July 2023
on Thursdays – from 09.30 am to 04.30 pm



Krauss Maffei

Pioneering Plastics

Via G. Mattei, 49
20044 Arese - MI

3° part



Carbon Foot printing
**Quantifying and reporting the climate
footprint of products or services**

3 part



GHG, Green House Gas, is a measure that expresses in CO2

GHG : 6 gas: Carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), sulfur hexafluoride (SF6) and perfluorocarbons (PFCs)



Yet the most recurrent criterion is measured in terms of transport

Internet is full of calculator
of Carbon FootPrinting

An algorithm to calculate CO2 by services, by product, ...

Upon UNI/ISO disposition, «not binding value»

Carbon Foot Printing

Lat. Impromptu: on the spot,

improvising, without being able to prepare

Gen. Sign that leaves a body imprinted on another, «impressed»

Ecological meaning

following the Kyoto Protocol '97 against global warming, the Conference on sustainable development in Rio 2012

Indicator that measures the hypothetical productive surface of land and sea needed by a population to regenerate the resources consumed)



POLYMER
A²DDITIVES
CADEMY
by GreenChemicals

25, May 2023 - 06, July 2023
on Thursdays – from 09.30 am to 04.30 pm



Krauss Maffei

Pioneering Plastics

Via G. Mattei, 49
20044 Arese - MI

3 part

CONCLUSION

**What's changing in polymer business
in the 2024
about CarbonFootPrinting?**

3 part

2024 CHANGE

a lot of aims and decisions
form **polymer business**

**Every Company has to calculate
Carbon Foot printing
has to use *UNISO*
quantify and report the climate
footprint of products or services**

**UNI CEN ISO /ITS
14067:2014**

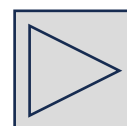
"Greenhouse gases - Product
carbon footprint -
Requirements and guidelines
for quantification and
communication",
in force on 11 September
2014.

2024 CHANGE THE COMMUNICATION in and among the companies



**Companies that innovate their management[?]
apply and communicate on
each services or products
attention to the ecological footprinting
To be more competitive and increase good
reputation in the market**

2024 A new way to study technical economic values Through Types Emission



(direct emissions)



(indirect emissions from energy consumption...)



(other indirect emissions from upstream and downstream activities)



The new management needs CFP calculation Through these steps & comparison values:



- ❑ 1. **to identify** the activities carried out by the organization;
Example : (v. home-work travel of employees, travel for business trips, supplies, etc...),
- ❑ + **to measure** environmental impacts (see consumption of heating fuels, electricity, etc.);Etc.



- ❑ 2. to increase **data collection** and to validate them
- ❑ + to **define value & aims** in internal procedures



- ❑ 3. to **calculate** carbon footprint, which is done **by comparing** the **input** flows related to carrying out the activities mentioned in point 1, in terms of flows (*energy, matter and water used*), and **outputs** resulting from their use (*in terms of: emissions to the atmosphere; wastewater to sewer; waste managed*);



- ❑ 4. to **reduce emissions** & To analyse results and actions for improvement



- ❑ 5. to **communicate** the results

Carbon Foot Printing - CFP

values to compare
and calculate + or -emissions

types of **forklifts**:
electric, diesel, LPG



types of **HEATING**:
electric, diesel, LPG

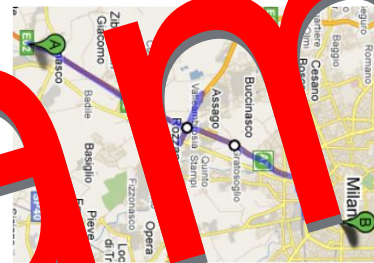


types of **cars**:
electric, diesel, LPG,



Idem for **BUS** :
electric, diesel, LPG, etc.

Transport goods by truck
electric, diesel, LPG, etc.



Calculation Km from
workers house to workplace

Workers, Managers *and so on* go
by plane, car, bus, train, foot ...

packaging material waste



OVERHeating by **PC**, old, new,...



OVERHeating by **machine of coffe, frigo, freezer, air condition, gas water, ...**



example



POLYMER ADDITIVES ACADEMY

by GreenChemicals

25, May 2023 - 06, July 2023
on Thursdays – from 09.30 am to 04.30 pm



Krauss Maffei

Pioneering Plastics

Via G. Mattei, 49
20044 Arese - MI

Thanks for your attention

Green 
Additech.International srl

IN THE AFTERNOON

What's changing for polymer businesses
in 2024?

by Prof. Adabella Gratani &
Prof. Oxsana Koplak,
Green@Additech.International srl

Green 
Additech.International srl