



AGPM - Eco Card Nr 7

What ? : **GREEN HOUSE GAS Score**

Also known as **CO2 Footprint**

Eco6s
 Statistical Analysis
 Environmental Analysis
 Technical Analysis

Making Values without losing them																
WHAT	To Reduce GHG Impacts of Packaging Process and Material is not a question of changing Material (Plastic) to another (non Plastic) as there are both using fossiles resources to be produced, but a question of producing them without burning vital resources and in renewing resources for the Future.															
WHY	<ul style="list-style-type: none"> • Entropic Combustion increases Acidity of the Oceans, killing Life Sources. • Entropic Oxydation increases desertic, acid Surfaces, destroying Species. • Burning fossile ressources destroys chances of Life for future Generation. • Burning fossile ressources increases global temperature (GHG Effects...) <p style="color: green; margin-top: 5px;">Life adopts low entropic oxydation to exist & survive since billion of Years</p>															
HOW	<p>From extraction step (Craddle) to polymerisation step (Gate before extrusion) GHG Score in Kg CO2 Equival./ Kg of Plastic are about the same with a high variation in the values calculated and communicated (+/-30%) due to hypothesis used in the Model of Reality.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">PVC</td> <td style="padding: 5px;">PS</td> <td style="padding: 5px;">PET</td> <td style="padding: 5px;">PE</td> <td style="padding: 5px;">PP</td> </tr> <tr> <td style="padding: 5px; color: red;">2.26</td> <td style="padding: 5px; color: red;">2.8</td> <td style="padding: 5px; color: red;">3.15</td> <td style="padding: 5px; color: red;">2.5</td> <td style="padding: 5px; color: red;">3.4</td> </tr> </table> <p>During extrusion of PVC, PS, PET or PP: GHG will be increased by 0.3 Unit in burning fossile resources but by 0.1 unit only in using renewable Energy (Sun, Wind, Hydrogen,...)</p> <p>During thermoforming of PVC, PS, PET or PP: GHG will be increased by 1 Unit if burning fossile resources but only by 0.3 in using renewable Energy (Sun, Wind, Hydrogen,...)</p> <p style="text-align: center; margin-top: 10px;">So it is the RE-Actions done by the Producers of Plastics (or non Plastic) in reducing Energy used, in recycling and in using Renewable Energies (Sun, Wind, Hydrogen, Water, Salt...) which reduce GHG Impacts not the Choice of the Plastics.</p>	PVC	PS	PET	PE	PP	2.26	2.8	3.15	2.5	3.4					
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WHO	<p style="color: red; margin-top: 0;">Quality & Industrial Teams to reduce GHG emissions of Process & Material.</p> <p>R&D Teams to design with 8 RE Actions on Energy, Materials and Processes</p> <p style="color: green; margin-top: 5px;">Management Teams to choice sustainable Energy within the Value Chain.</p>															
WHEN	<p>Actions and RE-Actions to be planned with Targets Proceedings</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>PAPER non FSC</td> <td>PAPER FSC</td> <td>PVC with fossile KwH</td> <td>PVC with renewable Energy</td> </tr> <tr> <td>PROCESSING STEP</td> <td>FOREST</td> <td>FOREST</td> <td>THERMOFORMING</td> <td>THERMOFORMING</td> </tr> <tr> <td>GHG IN %</td> <td>100</td> <td>50% reduced</td> <td>100</td> <td>33% reduced</td> </tr> </table>		PAPER non FSC	PAPER FSC	PVC with fossile KwH	PVC with renewable Energy	PROCESSING STEP	FOREST	FOREST	THERMOFORMING	THERMOFORMING	GHG IN %	100	50% reduced	100	33% reduced
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