

Examination emissions from products and logistics

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Abstract

Chart of company activities that contribute to increasing greenhouse gases and it is important to determine carbon footprint. CO₂ emissions and carbon footprints are mentioned in connection with the environment, which is affected by production and our own products. The climate changes in the context of greenhouse gases is solved agreements and conventions to reduce the production of greenhouse gases. Carbon footprint affects by environment. Linkages between size of a carbon footprint and amount of savings that result from its reduction are important for businesses. A good approach to this issue companies may lead to an increase in competitiveness and customer supply chains and customers. Important aspect is minimize emissions from produce of brass product to delivered to customers.

Keywords

logistics, carbon footprint, emission, brass

1. Introduction

Around year 1990 is started more speaking about greenhouse gasses and emissons which make up climate changes. Ecology situation on the Earth is very important for every people. Company people is trying this situation solve. Company involved in the projecting of modern supply chain networks have almost focused on the efficiency of the logistics process and creation for customers. Government addresses this situation by concluding agreements on reducing greenhouse gas emissions. The first who should solve this problems are company. Company products a lot of emissions and greenhouse gasses. This not health gasses in air are completly called Carbon Footprint. Their logistics is productions greenhouse gasses much more then people. It will be good if company have information or charting which logistics and how much making part of greenhouse gasses in the atmosphere. Really how much is Carbon footprint after activities. Tema Carbon footprint is important for environment.

When is Carbon footprint reduction is it good for company sphere. The Coherence between the volume of savings arising with their reduction and size of Carbon footprint. Active approach of company in this area could bring competitive advantage to customers and customer supply chains.

2. Comparison procedure

Emissions and greenhouse gasses are in the global endeavor to reduction in the international commitments. Companies integrate environmental into their systems. Goal is entire their production. Terminology which prominence in recent times is the Carbon footprint (CFP), quantifies emissions and greenhouse gas (GHG) in life-cycle perspective. The most prominent starting a proper Life Cycle Assessment (LCA). In LCA the inventory analysis quantifies the “elementary flows” of the product

system in the form of inputs from the environment without prior human transformations and outputs to the environment without further human transformations. In the Life Cycle Impact Assessment (LCIA), this information is translated with characterization step and aggregated to environmental impact indicator results related to human health. The Impact category results are expressed in different metric and can hence don't be compared across impact categories. There is a normalization is performed by calculating. The results relative to some reference information. The normalization reference applied in this study is the annual contribution of an average person to each impact, and the resulting common unit for all impact categories is the Person Equivalent (PE). The CFP typically considers the six GHGs identified in the Kyoto Protocol, i.e. CO₂, CH₄, N₂O, SF₆, HFCs and PFCs. The normalization reference for the CFP was calculated based on the global per capita emission data for these GHGs in 2004 applying the latest set of global warming potential (GWP) factors, released by the IPCC as characterization factors.

3. Carbon footprint

The climate changes are very interesting tema to solve and which is causing an increasing amount of greenhouse gases in the atmosphere. The main are from burning fossil fuels. Oil, gas and coal in themselves contain carbon millions of years old. Carbon dioxide, which is generated them burning, they use photosynthesis plants and "fossil carbon" thus transforming into their biomass. This isn't enough so fast and it is questionable whether the planet is enough space for so many forests and green areas that emissions from fossil fuels have built into their bodies.

Nearly every human activity from transport to food releases directly or indirectly greenhouse gases and thus disrupts the balance of gases in the atmosphere. Carbon footprint is the amount of carbon dioxide and other greenhouse gases released during the life cycle of a product or service our life or one way etc. It is a tool to measure the impact of human activities on the environment expressed dioxide equivalent. Its amount is expressed in units of mass: grams, kilograms or tonnes.

Carbon footprint consists of two parts: 1) the direct / primary and 2) of the indirect / secondary tracks.

4. Types of emissions

The concept of direct and indirect CO₂ emissions are important concepts in ecology. Direct emissions is an activity that is directly released into the atmosphere CO₂. Above this emission one has direct control. This includes driving a car to work, the burning of fossil fuels, etc. Indirect emissions associated with the products and services you purchase. In their manufacture and disposal leads to energy consumption and greenhouse gas production. This issue is customers resulting product is perceived as its indirect emissions. Dividing emission direct and indirect brings with it one complication. It depends on who your carbon footprint analyzes. What is the consumer indirect carbon footprint (production of the product), is also the manufacturer's direct carbon footprint. Emissions are generated directly as a result of the business. This introduces some of the methodologies to determine exactly who can be counted for each item. This prevents multiple counting of the same value or conversely its omission.

5. Metal materials and carbon footprint

Carbon footprint from brass materials is important tema which create during produce rods of brass. Consist of brass: They are the most widely used copper. Comprises from 5 to 40% zinc. Alloys having a copper content of over 80% are called tombaky. A special type of brass is nickel silver (pakfong) with 58-60% copper with 8-20% nickel, the remainder being zinc. From conventional brass differ in color.

Goal was compare materials of brass : two materials of ecological brass (sign 70 and 74 with components copper) and other brass with components of leaded. Two materials of ecological brass and materials of brass with components leaded was compare during exams drilling yoke constant force. Other exams was turning where were compare only two materials of ecological brass (sign 70 and 74). Today is an effort to replace the original machinable alloy ecological variants brass.

Machinability tests

Short: tentative, less time consuming, less material consumption, does not allow the inclusion of the material in class machinability. Long-term: more precise, time-consuming, more material consumption, enable the inclusion of the material in class machinability. Short-term tests: 1) drilling yoke constant force (VKPS), 2) Turning

Machinability materials: the ability of the material to be machined under certain operating conditions. Machinability divided: Kinetic, Dynamic, Mikrogeometric, Technology.

Machinability rating according to the intensity of wear of the cutting edge

- Taylor's relationship (to optimize cutting data.)
- Workability index (divided mater. Classes machined.)

It distinguish machinability at: drilling, turning, milling, grinding, etc.

Drilling yoke constant force (VKPS)

Fast, simple test used in the evaluation of machinability, particularly when assessing and comparing new environmental alloys. Description of the test: there is a penetration of the drill into the material under the influence of a constant feed force

The aim of the test: To determine the time required for drilling a constant depth in all the studied materials.

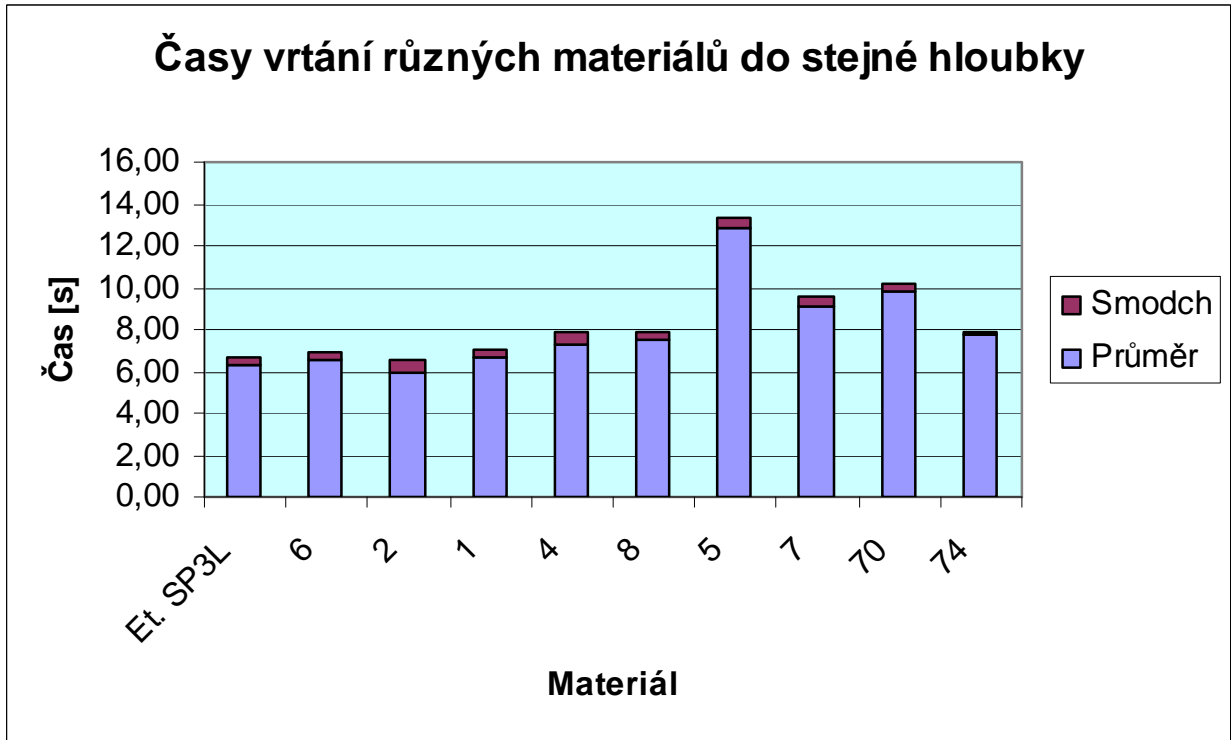


Fig. 1 compare materials 74 and 70

When comparing the times for the individual materials is seen that shortest times are for samples No.2 and etalons. And the longest time was for a sample No.5.



Fig. 2. Turning: material's test no. 74 and 70

Turning - Roughness

The test principle: roughness measurements at five locations along the helix for each machined portion values were statistically processed and used to create charts.



Fig.3 Sample No.24 - Material 70 chips and detail

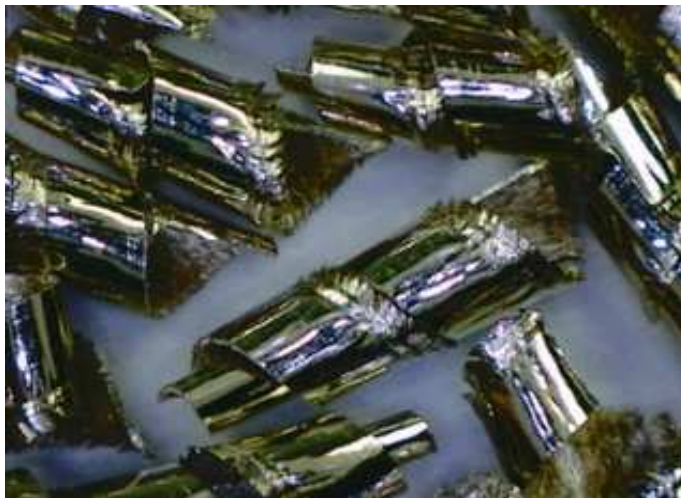


Fig. 4 Sample No. 7 – Material 74

6. Conclusion

Important is objective need to think about the environmental aspects of production, transport and households. All of these factors produce for their activities carbon footprint. It is necessary releasing emissions into the atmosphere reduced.

The necessity to address the situation solve firms and individuals.

Goal is minimize carbon footprint of ecologically brass and brass during produce, transport and storage and manipulation, and until transport to customers.

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