Environmental Awareness

CERTIFICATIONS
LIFE CYCLE PERSPECTIVE
MATERIALS
RENEWABLE ENERGIES
PACKAGING AND TRANSPORTS
WASTE AND EMISSIONS
POSSIBLE IMPACTS
TARGETS AND IMPROVEMENT AREAS

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Certifications
Respect for the environment is of paramount importance for the company in carrying out its production activity. To this end, Donati S.p.A. has obtained the certification of its environmental management system in accordance with the UNI EN ISO 14001:2015 standard.

To be certified in accordance with this standard represents a voluntary choice of the company, undertaken with the intention of implementing and maintaining its own environmental management system and improving its environmental performances. The certification is issued following the verification, by an accredited institution, of the management system implemented by the organization itself in order to monitor and check the environmental impacts of its activities and for their improvement.

The commitment of the company to UNI EN ISO 14001:2015 full compliance and principles’ implementation has led to the promotion of a policy towards a specific attention in terms of environmental needs and health and safety requirements:

— Meet the requirements of standards and compliance in HSE field
— Initiate a process to reduce energy consumption of non-renewable resources, through the use of renewable resources, in order to obtain a positive reduction of CO₂ emissions
— Aise awareness and educate our suppliers and involve them in the promotion of quality and environmental protection, through a continuous dialogue and, gradually more specific and stringent, HSE requests
— Collaborate with qualified designers and suppliers in order to fully meet customers’ needs, in terms of quality, aesthetics, organization, environment and safety
— Consider — during product design phases — environmental aspects, in a Life Cycle Perspective (LCP), devoting specific attention to the Design for Sustainability available methods and techniques
— Manage waste so as to favour and enhance, where possible, recovery and recycling rather than disposal measures, applying specific procedures and instructions, and above all training the staff on the topic and seeking innovative solutions and technologies
Starting from 2015, the company has set one major goal for the quadrennium, also deriving from the release of the brand-new UNI EN ISO 14001:2015 standard, that is to consider environmental impacts in a Life Cycle Perspective (LCP), devoting specific attention to available methods and techniques in the field of Design for the Environment, where possible, trying to:

— Prefer secondary raw materials and compliant suppliers
— Monitor energy consumption and, where feasible, favour sustainable energy choices
— Carry out regular checks of law compliance and voluntary monitoring
— Reduce internal displacement of items
— Monitor pollutants & waste production
— Start a project of CO₂ emissions (from transports) monitoring
— Design and project each item to be easily disassembled*, and re-used (full end-of-life recyclability)

* The complete disassembly of the piece is possible; however, the company does not handle the retrieval of the components as the company produces semi-finished products: the semi-finished product follows the finished one, thus, the chair.
Donati manufactures high-quality products with a high technological content, created with environmentally-friendly and reusable materials (in accordance with RoHS Directive No. 2002/95/EC and REACH Regulation No. 1907/2006/EC and following amendments). In addition, the company verifies with its suppliers that raw materials used do not come from conflict areas (3TG and R.E.E. policies). The raw materials used in the production of Donati’s products are mainly aluminum, steel and plastic.

The aluminum used for Donati’s products is, by definition, secondary aluminum. Aluminum ingots used in the production process are made of recycled aluminum since, owing to its technical characteristics, aluminum can be recast. As follows, aluminum ingots consist of:

— 93% Recycled aluminum
— 7% Alloying elements

Depending on the type of alloy used, the internal composition of alloying elements (lead, zinc, etc.) may vary.
The componentry used within Donati’s products is substantially composed of second-grade steel, in the form of different types of metal sheets and small purchase parts as screws or fittings. The steel used in the manufacturing process is composed of recovered materials (scraps) in a percentage varying from 25 to 100%, also depending on the technical function of the type of product to be manufactured.

The plastic material used within Donati’s products includes various types, which comprise both high grade (namely, virgin) and second grade (recycled) plastics. The plastic recycled content of purchased material is extremely variable and is related to the type of plastic and to the componentry to be manufactured. Once produced, each component is labelled according to the symbology coded in the UNI EN ISO 11469:2001 standard (concerning generic identification and marking of plastic products), in order to facilitate the discarding of the item and its recovery. The company, during the production process, performs controls, on the purchase plastic material, with technologically advanced equipment, with the aim of ensuring compliance with the regulations in force.
Toxic substances are considered «those which harm the natural environment and human health». The company chooses reliable and qualified suppliers and performs for each manufacturer an accurate and punctual check of material safety data sheets (MSDS). Furthermore, the company carries out environmental investigations for the protection of health and environment and attempts, wherever possible and-or necessary, to use closed machinery, that involve closed-cycle operations or, alternatively, to replace hazardous products with more eco-friendly products.

**AUXILIARY PRODUCTS AND ADDITIVES**

RoHS Directive No. 2002/95/CE (Restriction of Hazardous Substances Directive) and following amendments.
REACH Regulation No. 1907/2006/EC (Registration, Evaluation, Authorisation and Restriction of Chemicals) and following amendments.
CLP Regulation No. 1272/2008/EC (Classification, Labelling and Packaging of Substances and Mixtures) and following amendments.

**COMPLIANCE REQUIREMENTS**
Renewable energies
Energy is a priority topic for the company in order to avoid waste, therefore the energy indexes get constantly monitored. In the production process the biggest quantity of consumption of resources used is represented by electricity: after having assessed the various solutions for the production of clean energy existing on the market, the company chose to realize two solar panel plants (150 kW at the plant in Rodengo Saiano and 400 kW at the plant in Gissi) in two of its four operative sites. The realization was completed in June 2016; both plants became perfectly operating starting from August 2016.

Apart from the beneficial decrease in non-renewables energy resources’ consumption, the photovoltaic plants will lead to a decrease in CO$_2$ emissions. The installation of new plants at other operating sites of the company, during the two-year period 2018/2019, is currently under assessment.

**OTHER INITIATIVES**

Other realized investments are the installation of a power column for power supply, the purchase of an electric powered vehicle and the transition to a lighting system powered by LED lamps. Under assessment are the installation of power inverters and power optimizer.
Packaging and transports
 PACKAGING

Donati’s packaging consists of non-complex and recyclable materials: paper, wood and plastic. Over the years, the company has invested a lot to improve the efficiency of its packaging and has introduced various solutions for an alternative type of packaging both to improve efficiency and to reduce the impact on the environment like the usage of a transport net for internal and external circulation of products based on plastic baskets, replacing those composed of paper, or the use of more capacious boxes for mechanisms and bases, and also of more durable metal packaging for some customers.

 TRANSPORTS

Internal transport is mostly due to assembly phases. The company has introduced practices to pursue efficiency (e.g. shifting of logistics area adjacent to manufacturing plant). Hitherto, external transports used to be generally managed by customers (thus limiting company’s responsibility to cradle-to-gate). Now, the number of shipments (by truck, train, ship, plane, etc.) to the customer is increasing, therefore the environmental accountability has become harder. A goal of the company is to optimize goods’ stream to lessen the carbon footprint of the product and to realize detailed G.W.P. accounting for company transports.
Waste and emissions
WASTE

Ordinary waste produced within the company come from production processes (generated throughout the whole product life cycle), offices and other departments. The company is conscious of the importance of managing waste so as to favour and enhance, wherever possible, recovery and recycling rather than disposal measures, by applying procedures and specific instructions and, above all, by training its staff on the topic and seeking innovative solutions and technologies.

All the waste gets collected and separately disposed: paper, mixed packaging, cartridges, exhaust toner, etc. are given to the disposal plant for recovering and, most of the times, recycling.

A goal of the company is to increase the percentage of waste sent to recovery operations against the percentage of the ones sent to disposal operations and, furthermore, to increase the percentage of waste directed to recycling operations.

By analysing waste production and monitoring the percentage of waste recovered from total waste produced, the company is aiming at pursuing the lessening of the quantity of waste produced per kg of product manufactured.

Compliance requirements for waste:

EMISSIONS

— Air emissions / ozone layer depleting substances

The company has implemented a monitoring system of air emissions, as well as of fluorinated g.h.g., through yearly analysis. The company has set internal alert values that are largely below the legal thresholds.

Furthermore, the company has installed two photovoltaic plants: apart from the beneficial decrease in non-renewables energy resources’ consumption, the photovoltaic plants will lead to a decrease in CO₂ emissions.

— Soil / water emissions

The company does not unload industrial wastewater in the ground or in ground-waters, but disposes the whole waste production through authorized disposals.

— Acoustic emissions / noise

The company operates internal and external acoustic emissions checks, as per national law.

V.O.C.s

Volatile Organic Compounds (V.O.C.s) are organic chemicals that have a high vapor pressure at ordinary room temperature. Their high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublime from the liquid or solid form of the compound and enter the surrounding air.

V.O.C.s are numerous, varied, and ubiquitous, by including both human-made and naturally occurring chemical compounds. Most scents or odors are of V.O.C.s.

Some V.O.C.s are dangerous to human health or cause harm to the environment. Anthropogenic V.O.C.s are regulated by law, especially indoors, where concentrations are the highest.

Harmful V.O.C.s typically are not acutely toxic, but have compounding long-term health effects. Because the concentrations are usually low and the symptoms slow to develop, research into V.O.C.s and their effects is difficult. These substances are not intentionally added into the production process nor the company has feedback from its suppliers and-or from safety data sheets that they are part of the formulation and therefore they are not expected to be present on the finished product.
Possible impacts
The aim of the L.C.P. analysis is to be able to deepen the interactions of the product and its production chain with the environment where it locates, including its direct or indirect environmental consequences. This analysis is carried out to provide the company with the information needed to define the environmental effects of its activity and to identify improvement opportunities in terms of sustainability.

— Eutrophication potential
Pollution that causes plants and animals' losses in aquatic ecosystems due to a lack of oxygen following the proliferation of algae, stimulated in turn by high concentrations of nutrients.

— Global warming potential
The risk for planet's temperature to increase, due to gas emissions, and produce irreversible damages for the planet's biodiversity and resilience capability.

— Ozone layer depletion potential
The risk for depletion of the stratospheric ozone layer. Depletion of ozone layer allows more ultraviolet radiation to reach earth and cause damage to humans and crops.

— Acidification potential
The degradation of flora and fauna in lakes and rivers, as well as the accelerated degradation of materials such as metals, limestone and concrete as a consequence of acid emissions.

— Photochemical oxidation
A type of pollution that affects human health and the environment, caused by emissions of nitrogen oxide and Volatile Organic Compounds.
Targets and improvement areas
Donati considers environmental protection as a must. To support this choice, while creating projects designed to reduce the environmental impact of its activities, the company chooses, as far as possible, highly recyclable raw and secondary raw materials.

The company has developed an Improvement Plan form for the 2018/19 biennium:

**ENERGY RESOURCES CONSUMPTION**
- Creation of a dedicated staff for the management of corporate energy resources
- Analysis and research to obtain energy savings in each plant
- Re-lamping operations
- Installation of new photovoltaic plants
- Installation of a power supply point for electric vehicles
- Purchase of an electric powered vehicle for company use
- Introduction of consumption's punctual monitoring systems

**NATURAL RESOURCES CONSUMPTION (RAW MATERIALS)**
- Use of recycled materials (plastic, steel, aluminum)
- Research and design of products in L.C.P. perspective (item to packaging)
- Creation of a database for raw materials’ supply chain info (suppliers, disclosure statements, etc.)
- Administration of surveys focused on the end-life of products, in order to measure and further reduce, where possible, the environmental impact of the company

**SOIL PROTECTION AND SUSTAINABILITY**
- Periodic emergency drills (for both human and environmental safety)
- Identification of products increasingly compatible with health and safety and environment

**WASTE PRODUCTION**
- Recovery and purification treatment of water derived from aqueous solutions used in the manufacturing process

**EMISSIONS**
- Annual monitoring of air emissions (under review)
- Reduction of CO$_2$ production related to consumption of energy resources

**TRANSports**
- Analysis of indirect impacts related to transports (e.g. CO$_2$)
- Assessment on the possibility of using intermodal transports

**FURTHERmore**
- Introduction of dedicated staff to take care of customers requests’ in terms of the environmental info
- Creation of a new single logistic plant
- Certification of the occupational health and safety management system

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For a manufacturing company, the significance of environmental awareness means not only responsibility regarding the health of man and environment, but also means transparency in the communication of the impacts its products have on the environment and the actions undertaken to reduce them. This transparency is the starting point for an eco-sustainable future, within the office furniture branch too.