REACh - Information

on recycled building materials

European Quality Association
for Recycling e. V.

June 2010

EQAR

Content

1. Preface 3

2. The REACh-Regulation 4
2.1 REACh-systematics
Registration and notification obligations in the supply chain 4
2.2 Classification of recycled building materials as „articles”
according to REACh Regulation 5

3. End-of-waste properties of recycled building materials 6
3.1 End-of-waste properties of recycled building materials
under existing law 6
3.2 End-of-waste properties according to the new
EC Waste Framework Directive 2008/98/EC 6

4. Bibliography 7

Editor
European Quality Association
for Recycling e. V.
Kronenstraße 55 - 58
D-10117 Berlin
Germany
Phone: 0049 (0)30 20314-575
Fax: 0049 (0)30 20314-565
E-Mail: mail@eqar.info
www.eqar.info

1. Preface

As European roof organization of the building material recycling branch the European Quality Association for Recycling e. V. (EQAR) supports recycling in the building sector.

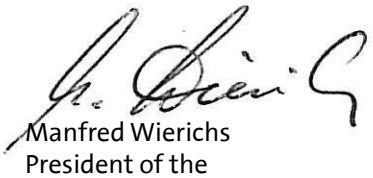
Mineral wastes have the biggest share in the waste produced in Europe. That is why residual mineral masses notably in the building sector should undergo a possibly high-quality recycling. This target may be only reached by a quality-assured recycling at a constantly high quality.

So far building materials for implementing building measures have been predominantly produced of raw materials taken from nature. The extraction of raw materials is accompanied by a destruction of landscape. Frequently long transport distances are connected with this type of extraction of building materials. However, from an aspect of landscape protection primary raw materials are not available indefinitely. Thus, using of recycled building materials does not only decisively contribute to avoiding waste but also to conserving resources and to preserving our landscape in Europe.

EQAR supports a quality-assured recycling of building materials. Quality-assured recycled building materials stand for high-quality products in ecological as well as in construction engineering respect which are on a level with primary building materials. As recycled building materials are to be considered as articles according to REACh Regulation their constituents come under the EC chemicals legislation effective all over Europe.

This REACh information on recycled building materials explains that quality-controlled recycled building materials are pursuant to the definitions of REACh Regulation „articles“ to the constituents of which the registration regulations and the provisions of the REACh Regulation relating to the notification obligations in the supply chain are not applied.

This REACh information documents the conformity of quality-assured recycled building materials with the REACh Regulation.



Manfred Wierichs
President of the
European Quality Association for Recycling e. V.

Berlin, June 2010

2. The REACh Regulation

The abbreviation **REACh** stands for **R**egistration, **E**valuation, **A**uthorisation of **Ch**emicals.

The REACh Regulation [1] entered into force on 1st June 2007 standardizing the chemicals law all over Europe. It is the declared aim of the regulation to increase the knowledge of hazards and risks and to take precautions against environmental and health hazards emanating from substances. In this connection a high responsibility is delegated to the companies producing, offering for sale and using substances.

2.1 REACh methods

Registration and notification obligations in the supply chain

In the REACh Regulation the actors in the supply chain beginning with the manufacturing or import of substances, via the sale, use and further processing of substances are put under various obligations relating to the registration of substances and the information on their substances and preparations.

Pursuant to REACh Regulation the terms are defined here as follows:

Art. 3, (1) Substance: a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used (Art. 3(1) REACh Regulation)

Art. 3, (2) Peparation (mixtures): aggregates, mixtures or solutions composed of two or more substances (Art. 3 (2) REACh Regulation)

Art. 3, (3) Article: object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition (Art. 3 (3) REACh Regulation)

The manufacturers or importers are responsible for the registration of substances produced or imported in a quantity of at least 1t/a. The manufacturer or importer and the downstream users in the supply chain are put under obligation to information.

It is obligatory to register only substances, not mixtures (preparations) or articles.

Substances contained in articles have to be registered only in the exceptional case if they will be released from the articles given normally or properly foreseeable conditions of use as this will be the case e. g. in solvents when curing lacquers. This exception does not come into consideration in recycled building materials.

Also the notification obligations in the supply chain refer basically to substances, however extended to mixtures (preparations) according to Art. 31 of REACh Regulation as regards safety data sheets and according to Art. 32 of REACh Regulation as to other information on substances if safety data sheets are not required.

In conformity with the special provisions of Art. 33 of REACh Regulation for substances contained in articles the suppliers of articles containing substances of a very high concern in concentrations of more than 0.1 per cent by mass the buyer of the article shall make available information on the safe use of the article and upon request the user shall make available respective information.

Recycled substances and articles no longer to be classified as „wastes“ after termination of the recovery process are to be considered as „having been manufactured” according to REACh Regulation in the view of the authorities, even if the recovery process will be only a recycling of materials (mechanical process) and not a chemical recycling.

Substances as such or mixtures may be manufactured or recovered or articles may be prepared by recycling.

2.2 Classification of recycled building materials as "articles" according to REACh Regulation

Quality-assured recycled building materials may be classified as „articles" according to Art. 3 (3) of REACh Regulation [1] if "during manufacturing they are given a special shape, surface or design which determines their function to a greater degree than does its chemical composition".

To detect whether the prerequisites are given according to the Guidance on Waste and recovered substances, Draft Version 3.0, 2010 [5] item 2.2.3, p. 6 of the European Chemicals Agency (ECHA) the following shall be checked:

a) first of all, determine the function(s) of the material by assessing the technical features of the material in relation to the intended function by the seller as well as the buyer of the material;

b) thereupon, decide on what is more relevant for the function, the shape/surface/design or the chemical composition (in particular, the chemical and/or physical properties).

The main function of the recycled building materials in their essential applications is to reach stability and resistance of the materials used in the applications to mechanical loads, if applicable, degradation/fragmentation.

Referring to this the document of the European Commission CA/24/2008 rev. 3, Article 3.1.5.2 „Recovered aggregates" [3] contains the following on the classification of recycled building materials:

..."Recycled "aggregates" consist of concrete, natural stones, masonry and/or asphalt, either alone or mixed in certain cases. They can have diverse applications, such as in civil engineering works, in roads and as railway ballast. In other words, the main function of this application is to provide stability and resistance to degradation/fragmentation. ***If for this function the shape, surface or design is more important than the chemical composition, the recovered aggregates can be considered as articles.*** *By definition, this can however only be the case if the shape, surface or design of the material has been deliberately determined and given during its production (e. g. in order to meet certain recognised aggregate standards based on size and shape). ..."*

According to their intended purpose quality-controlled recycled building materials are determined by means of geometrical parameters such as e.g. grain size distribution or mechanical properties such as e. g. the resistance to smashing. As to the application of the article criteria shape, surface or design of the crushed building materials are of importance. Even if the chemical composition and the environmental properties of the recycled building materials are checked they are a subordinate criterion for the intended purpose as against the geometrical-mechanical requirements.

That is why recycled building materials which by a quality control are quality-assured are articles pursuant to the definition of Art. 3(3) of the REACh Regulation in accordance with the provisions of ECHA Guidance [5] .

Thus, they are not subject to the obligation to registration according to REACh Regulation. Neither the obligation to information on the constituants in the supply chain is applicable to them pursuant to Art. 31 to Art. 33 of the REACh Regulation.

2.3 Quality assurance and information on the recycled building materials according to the EQAR Quality Directive

EQAR supports a Europe-wide quality assurance of recycled building materials by a quality control system. The requirements to such a quality control system are defined in the **EQAR** Quality Directive. National member associations and member enterprises committed to observing the **EQAR** Quality Directive are awarded the **EQAR** Quality Label.

By a comprehensive and transparent procedure to assure quality the **EQAR** Quality Directive ensures reaching of a high quality of the recycled building materials.

This involves also a voluntary, comprehensive information on the article properties of the recycled building materials.

The quality assurance in conformity with the **EQAR** Quality Directive with a continuous control of the recycled building materials ensures constant constructional article properties in conformity with the requirements of EN 12620 and EN 13242 and fulfilling of the ecological requirements.

Control reports document the article properties including observing of all national regulations on environmental compatibility.

Only the use of quality-controlled recycled building materials ensures that all national as well as European legal standards will be observed.

3. End-of-waste property of recycled building materials in conformity with the EC Waste Framework Directive 2008/98/EC

Under Art. 6(1) of the new EC WFD 2008/98/EC [4] the end-of-waste property of recycled building materials will be reached if the starting materials used have undergone a recovery process and another or new article was obtained with the recycled building materials than the residual building materials used in the recovery process. As the recycled building materials obtained do not require a further treatment for being used in civil engineering works, road building and tracklaying with the production of quality-assured recycled building materials the end-of-waste property has been reached as the present law stands and thus the waste regulations are no longer appli-cable to the quality-assured recycled building materials.

Art. 6 (1) of the WFD stipulates:

Certain specified waste shall cease to be waste within the meaning of point (1) of Article 3 when it has undergone a recovery, including recycling, operation and complies with specific criteria to be developed in accordance with the following conditions:

a) *the substance or object is commonly used for specific purposes;*

b) *a market or demand exists for such a substance or object;*

c) *the substance or object fulfils the technical requirements for the specific purpose according to a) and meets the existing legislation and standards applicable to products;*

d) *the use of the substance or object will not lead to overall adverse environmental or human health impacts...“*

The criteria shall include limit values for pollutants where necessary and shall take into account any possible adverse environmental effects of the substance or object. The conditions a) to c) are fulfilled for quality-controlled recycled building materials. The criteria for the condition d) will be laid down in future by a regulation on substitute building materials. In general, it holds true for quality-controlled recycled building materials also here that condition d) is fulfilled as regards the protection of environment and health.

As to the criteria there holds true under Art. 6 (2) of the WFD:

“The measures designed to amend non-essential elements of this Directive by supplementing it relating to the adoption of the criteria set out in paragraph 1 and specifying the type of waste to which such criteria shall apply shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2). End-of-waste specific criteria should be considered, among others, at least for aggregates, paper, glass, metal, tyres and textiles.”

Criteria catalogues for metal recycling and recycled paper/cardboard are already available. Based on the above-mentioned conditions the **end-of-waste property** of quality-controlled recycled building materials is out of the question.

4. Bibliography

[1] European Parliament and European Council (EC) "Regulation (EC) no. 1907/2006 on the registration, evaluation, approval and restriction of chemical substances (REACh)..." (REACh Regulation) dated 18/12/2006

[2] European Chemicals Agency (ECHA), Annankatu 18, 00120 Helsinki, Finnland, "Guidelines on the Determination and Naming of Substances in the Framework of REACh", dated 06/2007

[3] Europäischen Kommission, Dokument "CA/24/2008 rev. 3", "Follow-up to 5-th Meeting of the Competent Authorities for the implementation of Regulation (EC) 1907/2006 (REACh)", 25 -26 September 2008, datet 03/04/2009

[4] European Parliament and European Council, Directive on Wastes, "Waste Framework Directive" (WFD; 2008/98/EC) dated 19/11/2008

[5] European Chemicals Agency (ECHA), Annankatu 18, 00120 Helsinki, Finnland, „Guidance on waste and recovered substances", Version 3, dated 04/2010