

## CE-marking of geosynthetics based on a system of European certification and of European standards

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### ABSTRACT

The topic this session deals with is in a constant and sometimes rapid evolution. Between the time this abstract is written and the actual moment of the conference itself, important changes and decisions can be expected. Therefore this paper only sketches a general outline of the topic and the most recent information will be given during the session.

In 1985 the "new approach" policy of the European Community gave an enormous impulse to European standardization. The philosophy behind this new approach is that in the European single market products should circulate freely, with restrictions only for health and safety of the public and/or the environment. In the legislation (European directives) only the general principles should be specified and the technical aspects should be dealt with by European standardization. A manufacturer can prove compliance of his product with the requirements of the directive, if he can prove conformity with the appropriate harmonised European standard. This, of course, boosted the need for European standardization in a wide variety of areas.

Geosynthetics are covered by the Construction Products Directive or CPD (European directive 89/106/EEC). The CPD specifies 6 essential requirements for works:

- mechanical resistance and stability;
- safety in case of fire;
- hygiene, health and the environment;
- safety in use;
- protection against noise;
- energy economy and heat retention;

Construction products can circulate freely through the EU, and hence can be CE-marked, if they contribute, when properly used, to the achievement of the above mentioned essential requirements. Only characteristics related to the essential requirements can be used for the CE-marking. The European Commission has given precise instructions on the nature of these characteristics in a mandate to CEN. This mandate sets the limits for

standardization as far as the legally mandatory aspects are concerned. The standardization committees can be more specific, but these additional characteristics can only be the subject of a voluntary marking of the product and cannot be an obstacle to its CE-marking.

In order to make the CE-marking system function several elements are needed:

- the CPD and its interpretative documents;
- a system to evaluate the conformity of products;
- notified bodies for the surveillance of this conformity;
- harmonized standards.

The first two elements already exist. The CPD and its interpretative documents are approved and are now making their way to the national legislation of the Member States. A system of attestation of conformity has been adopted by the Standing Committee on Construction. This system specifies that the manufacturer has to declare the conformity of his product on the basis of:

- his own type-testing and factory production control;
- the certification of his factory production control by an approved body, which will make an initial inspection of the factory and its factory production control and which will also be responsible for a continuous surveillance, assessment and approval of this factory production control.

If the geosynthetic only fulfils the role of separator of soil layers, a certification by an approved body is not needed.

The approved bodies will be designated by the

individual Member States on the basis of their technical competence and experience and their impartiality. This can be done now that the role of the approved body is clear. The decision of a Member State to appoint an approved body is notified to the other Member States in the Official Journal of the European Union, hence the name "notified body".

The element "harmonized standards" is worked out in CEN/TC 189 Geotextiles and geotextile-related products. This technical committee comprises 6 working groups, of which one is a joint working group with TC 254 Waterproofing sheets and membranes. Three working groups are dealing with respectively mechanical, hydraulic and durability testing. Another working group is responsible for standards on terms and definitions. Working group 1 is responsible for the so called "application related standards" for geotextiles and geotextile-related products, whereas the joint working group does the same for geomembranes.

An application related standard will contain a list of characteristics, considered to be necessary if the product has to fulfil a certain function in the application, e.g. to function as a filter layer in a drainage system. For each characteristic the appropriate test method is given. Furthermore provisions for the evaluation of conformity and for the marking are included. In an annex the link is made with the CPD and the CE-marking.

The combination of all these elements will lead to a system of marking and certification on the European level, avoiding duplication of costs and efforts.