

CE-MARK FOR THERMAL INSULATION PRODUCTS

In principle construction products marketed in the European Union shall fulfil the essential characteristics (requirements) which relate to the basic requirements for construction works laid down in the current Construction Products Regulation (305/2011/EU - CPR). Construction products shall fulfill the requirements of either the relevant European Technical Guideline or the relevant harmonised European Product Standard provided they are available. As a visible sign of such fulfilment, the CE-mark can be used. Through "CE-marking" (abbreviation of "Conformité Européene" = "European Conformity") the manufacturer indicates that the construction product is in conformity with the applicable requirements set out in a harmonised European standard or European technical assessment (approval). If the construction product is covered by a harmonised European standard, then the CE-mark is obligatory for such a product.

For thermal insulation products manufactured by Armacell the harmonised standards have been available since December 2009:

- for elastomeric insulation (e.g. Armaflex): EN 14304, Thermal insulation products for building equipment and industrial installations - Factory made flexible elastomeric foam (FEF) products - Specification
- for polyethylene insulation (e.g. Tubolit): EN 14313, Thermal insulation products for building equipment and industrial installations - Factory made polyethylene foam (PEF) products - Specification

In accordance with these standards and EN 13172, conformity of the insulation products shall be evaluated based on initial type testing (ITT) and factory production control (FPC). This can be done either by the manufacturer under the so-called system 3 and confirmed by his own declaration of conformity or by a notified body (certifier) under system 1 and confirmed by a certificate of conformity as well as by a declaration of conformity of the manufacturer. System 1 is obligatory for all insulation products with reaction-to-fire class "C" and higher if flame retardants are applied in the manufacturing process, which is the usual case for FEF and PEF insulation.

The harmonised standards set out the rules how to declare and publish numerous technical parameters of insulation products. However, these standards do not generally set minimum or maximum threshold values of the technical parameters. The harmonised standards provide uniform principles how these technical parameters of insulation products shall be tested, controlled, published and declared. This allows the installers or specifiers of the insulation products a quick and easy comparison of these products based on the same principles.

Apart from dimensional tolerance only two technical parameters of insulation products are obligatory for all applications:

- reaction-to-fire acc. to EN 13501-1,

- thermal conductivity declared acc. to EN ISO 13787.

All other parameters such as maximum and minimum service temperature, water vapour diffusion resistance, trace quantities of water soluble ions or acoustical values are considered as “for specific applications” and thus are not obligatory. However, if they are declared by the manufacturer in the product designation code and confirmed in his declaration of conformity, the manufacturer is legally liable for conformity of his products with these declared parameters.

The harmonised standards also provide an example of the carton (package) label with all data and information which must accompany a CE-marked insulation product.

Due to the obligatory CE-marking of the insulation products the direct customers and those involved in the process of material selection and application can expect the following benefits:

- quick and easy comparison of the technical parameters of the insulation products produced by various manufacturers based on the same principles which are clearly defined in the harmonised European product standards,
- transparency of the published technical parameters and identification of the product: for each particular insulation product the values published on the carton label must be equal to those on the certificate of conformity and the declaration of conformity,
- enhanced credibility of the manufacturers of the insulation products being verified in an ongoing process by the notified bodies (certifiers),
- clearly defined (in EN 13172) process of complaint if any technical parameter of the insulation product does not meet the published value.

Armacell is well advanced in the CE-marking procedure for its elastomeric and polyethylene insulation products in all European plants and will have all insulation products CE-marked by August 1st, 2012, which is the due date. All thermal insulation products placed by the manufacturers on the market in Europe must have CE-mark affixed latest by this date. There is a common understanding confirmed by the decision of Working Group 16 of the Technical Committee CEN/TC 88 that wholesalers can make insulation products which have already been purchased and not yet CE-marked available on the market for one year longer.