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Rakennustuotedirektiivin (89/106/EEC) artiklan 10,
neuvoston direktiivi 21. joulukuuta 1988, mukaisesti
notifioitu tuotehyväksyntälaitos

EOTAN JÄSEN

Eurooppalainen tekninen hyväksyntä ETA-09/0129

European Technical Approval

Kauppanimi:

Trade name

Sealection 500 joustava solumuovilämmöneriste
Sealection 500 soft foam insulation

Hyväksynnän haltija:

Holder of approval:

Demilec USA LLC
2925 Galleria Drive
Arlington, TX 76011
USA

Tuotetyyppi ja sen käyttötarkoitus:

Generic type and use of construction
product:

RAKENNUSTEN LÄMMÖN- JA ÄÄNENERISTE
THERMAL AND ACOUSTIC INSULATION FOR
BUILDING

Voimassaoloaika:

Validity from/to

04.06.2009
03.06.2014

Valmistuspaikka:

Manufacturing plants:

Demilec USA LLC, 2925 Galleria Drive
Arlington, TX 76011, USA

Tämä hyväksyntä sisältää

This European Technical Approval
contains

sivuja/liitteitä

6 sivua, ei liitteitä

pages/annexes

6 pages including no annexes



Eurooppalainen tekninen hyväksyntäorganisaatio
European Organisation for Technical Approvals

I LEGAL BASES AND GENERAL CONDITIONS

1. This European Technical Approval is issued by the VTT Technical Research Centre of Finland in accordance with:
 - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by the Council Directive 93/68/EEC² and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council³,
 - Laki rakennustuotteiden hyväksynnästä (230/2003) luvut 3 ja 10, Ympäristöministeriön asetus rakennustuotteiden hyväksynnästä 3 § sekä Ympäristöministeriön 14.10.1997 antama valtuutus päätös (12/352/94),
 - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex of Commission Decision 94/23/EC⁴;
 - CUAP for European Technical Approval of "Soft foam insulation", edition October 2007.
2. The Technical Research Centre of Finland (VTT) is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
3. This European Technical Approval is not to be transferred to manufacturers or agents of manufacturer other than those indicated on Annex 1; or manufacturing plants other than those indicated on page 1 of this European Technical Approval.
4. This European Technical Approval may be withdrawn by the Technical Research Centre of Finland (VTT) pursuant to Article 5 (1) of the Council Directive 89/106/EEC.
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6. The European Technical Approval is issued by VTT in English. This version corresponds to the version circulated within EOTA. Translations into other languages have to be designated as such.

¹ Official Journal of the European Communities N° L 40, 11.2.1989, p. 12

² Official Journal of the European Communities N° L 220, 30.8.1993, p. 1

³ official Journal of the European Union N° L 284, 31.10.2003, p. 25

⁴ Official Journal of European Communities N° L 17, 20.1.1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1. Definition of the product and intended use

1.1 Definition of the construction product

Soft foam insulation is low density open cell insulation. The insulation is sprayed or injected. It is produced by mixing the components resin and polyisocyanate components together.

1.2 Intended use

The product is intended to be used in walls, partitions, floors, intermediate floors and ceilings as thermal and acoustic insulation in such constructions where it is not subjected to loads or not exposed to wetting, weathering, heavy moisture transport or condensation.

The provisions made in this ETA are based on an assumed working life of the thermal insulation of 50 years provided that the conditions laid down in this section and sections 4.2/5.1/5.2 for the packaging, transport, storage, installation, use maintenance and repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

2. Characteristics of product and methods of verification

The methods of verification and characteristics of the thermal insulation evaluated in this ETA are as follows:

CUAP Paragraph	Characteristic	Assessment of the characteristic
ER1 Mechanical resistance and stability		
2.4.1	Corrosion developing capacity on metal constructions	White corrosion and small pits in 0,075 mm thick zinc foil in contact with insulation in humid 90 – 95 % RH and warm conditions No pits in 0,075 mm thick copper foil in contact with insulation in humid 90 – 95 % RH and warm conditions
ER2 Safety in case of fire		
2.4.2	Reaction to fire (insulation) Reaction to fire (insulation, 135 mm, inside the structure of 12 mm gypsum boards, timber studs, 40x 135 mm, construction)	Class F (tested) Class B-s1,d0
ER 3 Hygiene, health and environment		
2.4.3	Content and release of dangerous substances	No dangerous substances *) No flame retardants or biocides
2.4.4	Water absorption, EN 1609	9,7 kg/m²
2.4.5	Water vapour permeability, EN 12086 μ -value	18 x 10⁻¹² kg/msPa 11
2.4.6	Susceptibility to mould growth, CUAP Annex B	Rating 0 -1 (without spore addition) Rating 1 (with spore addition)
ER 4 Safety in use		
Not relevant		
ER 5 Protection against noise		
2.4.7	Dynamic stiffness, EN 29052-1 Compressibility (thickness change), EN 12431	3, 9 – 4,1 MN/m³ - 24 % (density 9,6 kg/m³)
ER 6 Energy economy and heat retention		
2.4.8	Thermal conductivity, $\lambda_{90/90}$, dry at 10 °C **Thermal conductivity, $\lambda_{DECLARED}$, EN 12667 and EN ISO 10456	0,0395 W/mK (density 8 - 11 kg/m ³) 0,040 W/mK
2.4.9	Compressive strength at 10 % deformation, EN 826	4,8 kPa
2.4.10	Tensile strength parallel to faces, EN 1608	22 kPa
2.4.11	Delamination strength, EN 1607	10 kPa
2.4.12	Dimensional stability (length/width/thickness), EN 1604 +70 °C, 90 %RH, 48 h - 20 °C, 48 h	-1,2/- 1,2/+ 0,8 % - 0,06/- 0,01/- 0,3 %
Related aspects of serviceability		

*In addition of the specific clauses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products directive, these requirements need also to be compiled with, when and where they apply.

** Calculated from the $\lambda_{90/90}$, dry at 10 °C

3. Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the decision 99/91/EC of 25.01.1999 of the European Commission the system 3 of attestation of conformity applies, since there is no improvements of the reaction to fire classification in the production process.

This system of attestation of conformity is defined as follows:

System 3: declaration of conformity of the product by the manufacturer on the basis of:

- (a) Tasks for the manufacturer:
 - (1) Factory production control,
 - (2) Testing of samples taken at the factory in accordance with the prescribed test plan
- (b) Tasks for the notified body:
 - (3) Initial type testing of the product

3.2 Tasks for the manufacturer

3.2.1 *Factory production control*

The manufacturer continues to operate a factory production control system. Quality control checks are made on incoming materials, and at regular stages throughout the production sequence to ensure the quality and fitness for use of the product.

VTT Technical research centre of Finland maintains a file describing the tasks and tests imposed on ETA holder. The file includes information of the main raw materials and "Control plan" which include the type and frequency of the manufacturers factory production control agreed between approval holder and VTT:

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the "Control plan".

3.2.2 *Initial type testing of the product*

For initial type testing the results of the tests performed as part of the assessment for this European Technical Approval shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between VTT and the manufacturer.

3.3 CE-marking

The CE-marking shall be affixed on the each packaging or on the delivery tickets put into the packages. The symbol "CE" shall be accompanied by the following additional information:

- Name of the product: Commercial trade name as indicated in this ETA
- Name and address of the ETA holder (legal entity responsible for the manufacture)
- The last two digits of the year in which the CE marking was affixed
- The number of the European Technical Approval, ETA 09/0129
- Declared and at least most essential properties according to the following:
 - Thermal conductivity, $\lambda_{90/90}$
 - Compression strength/stress
 - Tensile strength parallel to faces
 - Dimensional stability
 - Water absorption
 - Water vapour permeability
 - Corrosion developing capacity

4. Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1 Manufacturing

Manufacturing of the soft foam thermal insulation is based on the defined production method, use of defined raw materials and tolerances. If changes take place, the manufacturer is responsible to clarify if the change has influence on the properties of the product tested according to the provisions of this CUAP.

The European technical approval is issued for the product on the basis of agreed data/information, deposited with VTT, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to VTT before the changes are introduced. VTT will decide whether or not such changes affect the approval and consequently the validity of the CE marking on the basis of the approval and if so whether further assessment or alterations to the approval shall be necessary.

4.2 Installation

The thermal insulation is installed on to the building according to the instructions of the manufacturer. The suitability of the insulation to the planned purpose shall be evaluated taking into account what has been said in chapter 1.2.

5. Indications to the manufacturer

5.1 Packaging transport and storage

The insulation products are transported to the building site in barrels. The products components shall be stored at temperatures between +10 - +30 °C before the installation.

5.2 Use, maintenance and repair

The thermal insulation shall work adequately when the construction where it is installed according to the instructions of the manufacturer is maintained and repaired so that the provisions of use given in chapter 1.2 of this ETA are fulfilled.

On behalf of VTT Technical Research Centre of Finland

Espoo 04.06.2009



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