Förhandsgranskning / Preview

Insulation of pipelines, ventilation ducts, smoke flues and storage tanks

Scope

By insulating correctly, you can reduce energy consumption, which is good for both the environment and the economy. SSG 7591E is a standard that facilitates the selection of insulation materials, insulation thickness and insulation execution.

The standard also provides recommendations on surface cladding materials and the design of surface cladding on pipelines, ventilation ducts, some smoke flues, as well as containers such as storage tanks, pressure vessels and vacuum vessels.

This standard deals with thermal insulation, that is, insulation for temperatures from + 0°C and above. Insulation for cold installations is not addressed in this standard.

Always contact the manufacturer of the insulation for detailed information in case of any ambiguities.

SSG Standards are covered by copyright and may not be reproduced without special permission.
ssgsolutions.com

Förhandsgranskning / Preview

Changes since the previous edition

This edition differs from the previous one in that:

- Section 2 – ”Terminology” has been added.
- Section 4.1 – ”Preparation and conditions for insulation work” has been rephrased to be relevant for today's insulation work.
- Section 4.2 – ”Fire” has been rephrased.
- In section 4.5 – ”Performance requirements - insulation”, information has been added that the previous work should be completed and inspected to facilitate the insulation work. Information has also been added that expansion in hot and cold pipes should be taken into account and that, from an energy point of view, the number of thermal bridges should be minimised as much as possible.
- Section 4.8 – ”Emissions” has been added.
- Section 5.1.11 – ”Insulation of pipeline with cellular glass (CG) pipe bowl” has been added.
- In section 8.1.3.1 – ”Insulation material”, the recommendations on materials for the roof of the container have been adapted to how insulation work is currently carried out.
- References have been updated.
- The language in the standard has been reviewed and its design has been updated.

SSG Standards are covered by copyright and may not be reproduced without special permission.
ssgsolutions.com

Förhandsgranskning / Preview

Example of an insulation solution selection procedure

1. Heat loss determination

Determine the maximum permissible heat loss for the object.

2. Product selection

Select the type of product, e.g. pipe section, wired mats, slabs or lamella mats.

Example:

Thermal insulation of DN<100 pipes:

- Installed in accordance with section 5.1.1.
- Cladding installed in accordance with section 5.2.1 with flat aluminium sheeting.

Protective insulation of pipes DN<100:

- Installed in accordance with section 5.1.4.
- Cladding installed in accordance with section 5.2.1 with flat aluminium sheeting.

Condensation insulation of pipes DN<100

- Installed in accordance with 5.4.

3. Insulation thickness selection

Thermal insulation:

- Selected in accordance with tables 1–3 in appendix 1.

Protective insulation:

- Selected in accordance with table 4 in appendix 1.

Example:

Appendix 1, table 2 (energy requirement level: medium).

Condensation insulation:

- Selected in accordance with table 5 in appendix 1.

Insulation to prevent the freezing of pipes:

- Selected in accordance with table 6, appendix 1.

SSG Standards are covered by copyright and may not be reproduced without special permission.
ssgsolutions.com