

Standard Guideline for Handling, Transporting, Shipping, Storage, and Application of ROCKWOOL Stone Wool Insulation Material

1.0 Scope

No additional information available. This standard guideline is intended to provide guidance in the handling, transporting, shipping, storage, and application of ROCKWOOL stone wool insulating materials.

2.0 Referenced Documents

- a) ROCKWOOL Product Handling Guidelines
- b) ASTM Standard C929: Standard Practice for Handling, Transporting, Shipping, Storage, Receiving, and Application of Thermal Insulation Materials for Use in Contact with Austenitic Stainless Steel.

3.0 Significance and Use

- a) ROCKWOOL stone wool products, made from an almost inexhaustible common source – stone, are designed to offer effective protection and optimal insulation performance for the entire life cycle of the installation.
- b) As ROCKWOOL stone wool is made from man-made mineral fiber, shelf-life principle does not apply as such in stone wool products as this should work for the lifetime of the structure.
- c) Some guidelines and precautions to ensure the effective performance of stone wool products:
 - i) Correct and appropriate usage of the product as stated in the relevant data sheets and any additional recommended guidance.
 - ii) Appropriate attachment and protection of the product, giving due regard to intended application.
 - iii) Storage and handling as per manufacturer's guidelines.
 - iv) A high standard of workmanship being employed throughout product installation.
 - v) The product not being disturbed or otherwise damaged subsequent to installation.
 - vi) Any force majeure.

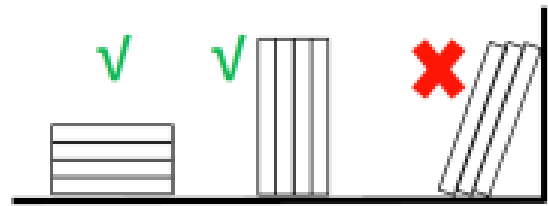
4.0 Handling, Transporting, Shipping

- a) All handling and transporting of insulation materials shall be done in a manner that will prevent/minimize the contamination from external sources.
- b) Handling of insulation materials with bare hands is to be avoided. While taking and handling the products, clean polyethylene gloves are to be worn to avoid contamination from perspiration.
- c) Gloves made from chloride-containing compounds such as neoprene or saran, or materials with metallic chlorides in their formulations are not recommended.
- d) Shipment of materials from the manufacturer to the installation location of the user shall be in a manner that will prevent/minimize the contamination from external sources. Provisions and responsibility for special transportation or packaging shall be agreed upon between the purchaser and the seller or manufacturer.
- e) Where possible, qualified and unqualified materials shall be kept physically segregated. Where conditions make it necessary to have both qualified and unqualified materials of the same type at the job site, storage area or in the same shipment, all qualified materials must be clearly identifiable from unqualified materials.

5.0 Storage

- a) All insulation materials shall be stored in the building or properly protected storage area in a manner that will prevent/minimize contamination from external sources.
- b) Storage buildings shall be situated and constructed so that they will not be subject to flooding. The floor shall be paved, or equal, and well drained.
- c) Insulation materials shall be placed on non-contaminated pallets or shoring to prevent direct contact with the ground or floor.
- d) Products are not to be stored with direct exposure to wet condition (e.g. water, rains, frost etc.) nor near the heat source and direct sunlight. This is to prevent water ingress and condensation of humidity inside the packs as well as to prevent the deterioration of packaging foil by UV-light.

- e) Storage of materials in non-ventilated areas, such as containers or warehouses for long hours while they are fully wrapped with tarpaulin, is strongly not advisable.
- f) While packaging will provide some protection, care should be taken to keep the material dry at all times.
- g) If qualified and unqualified insulation materials are stored in the same area, they must be segregated.
- h) Insulation materials are to be stored on a flat surface in horizontal position (flat) or vertical position (standing). Stacking of materials more than 2.5 meter height is prohibited.



6.0 Application Precautions

- a) Cleanliness of the surface to which it is applied is of equal importance. Surfaces of the piping/equipment have the potential to be contaminated from external sources, such as but not limited to airborne sea mist carried by onshore winds, chemical fumes, ink from marking pens, adhesive on tape, accidental spills of water-soluble corrosive ion bearing materials, melting salts used to clear ice and snow, and many other ways. The contaminant shall be removed from the surface before insulation is applied and precautions shall be taken to prevent their entrance during and after the installation.
- b) Any material suspected of being contaminated during the application shall not be used and be clearly marked and set aside for further testing, disposal, or used as unqualified material.
- c) Insulation materials are recommended to be unpacked only at application side. This will minimize frequency of material handling and prevent potential damages.
- d) Handling of materials with bare hands during application is to be avoided. While taking and handling the materials, clean polyethylene gloves are to be worn to avoid contamination from perspiration.
- e) Tools used during handling and installation shall be thoroughly cleaned and dried prior to use so as to reduce the possible contamination to the insulation materials.
- f) Stepping directly on non-load bearing products is strongly prohibited.
- g) Installed/Uninstalled products are to be protected from direct exposure to wet weather (e.g. rains).
- h) Insulation and accessory materials shall be inspected at various stages prior to application to further reduce the risk of contamination. Retesting is permitted in a particularly critical application such as pressure vessels, or when contamination is suspected by visual examination.

Disclaimer: This guideline does not purport to address all the safety concerns, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure the proper usage of the products.